United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

Veterinary
Services

Centers for
Epidemiology
And Animal
Health

Using Oracle Discoverer™ with the GDB

GDB, Version 8i.5

February 2004

Contents

Chapter 1:
Preface

This manual describes the Oracle Discoverer™ product, a web-based query tool that you can use to retrieve data from Oracle-based databases such as the Generic Data Base. You then use Discoverer to format and generate reports with this retrieved data.

The Discoverer tool essentially enables you to execute queries in much the same way that command line-based SQL macros do. Discoverer's features, however, eliminate the need for you to understand complex database concepts, macro-authoring, or the SQL language.

Discoverer for GDB 8i.5 release is considered an "initial release." In this initial release, you can do the following tasks:

- Search for and retrieve data from any GDB tables.
- Edit your initial search queries and re-submit them to the GDB to get better or more comprehensive results.
- Use or customize Discoverer's default report formats.

Help Resources for Oracle Discoverer™

There are a number of resources available to you as you start learning and using Oracle Discoverer™. In addition to this manual, help is available via:

Name of Help Resource	Where to Find This Resource
GDB Helpdesk	See the next section for details.
VS-AIM Contacts	See the next section for details.
Online Help feature in the Discoverer product	In Discoverer's menu bar, select the **Help** menu item.
Workbook Wizard in the Discoverer product	This interactive document automatically launches when you select the **Open a new workbook** option after logging into Discoverer.
Classroom-based training (coming soon)	Watch for announcements at the USDA's GDB website: http://gdb.aphis.usda.gov

Your Feedback on Oracle Discoverer™

We encourage you to use this Discoverer initial release to create and run your own GDB queries. And we welcome any feedback on your experiences with this product. Other feedback you are encouraged to submit include:

- requests for enhancements to the Oracle Discoverer™ product
- requests for new, pre-defined workbooks you would use on a regular basis
- requests for validation of a new workbook you created to ensure it retrieves the data you want
- requests to have a workbook you created made available for use by other APHIS personnel nationwide

You can contact the Veterinary Services Application and Information Management team (VS-AIM) by the following methods:

GDB Helpdesk	URL:	http:/vsftchelp.asphis.usda.gov
Mark Koeneker	Telephone: E-mail:	970.494.7301 mark.j.koeneker@aphis.usda.gov
Sandra Hill	Telephone: E-mail:	970.494.7298 sandra.k.hill@aphis.usda.gov

Topics Covered in This Manual

Chapter 2: Introduction

This chapter describes how Oracle Discoverer™ works as a database query tool. You will also learn a few terms and concepts about databases in general.

The topics covered in this chapter appear below:

About Oracle Discoverer™

In this section, you will learn about the features, components, architecture, and end-user interface of Oracle Discoverer™.

Discoverer's Features

The Oracle Discoverer™ product is a web-based query tool, with a visual interface that enables you to browse Oracle-based databases, such as the Generic Data Base (hereafter referred to as "the GDB").

Discoverer's:

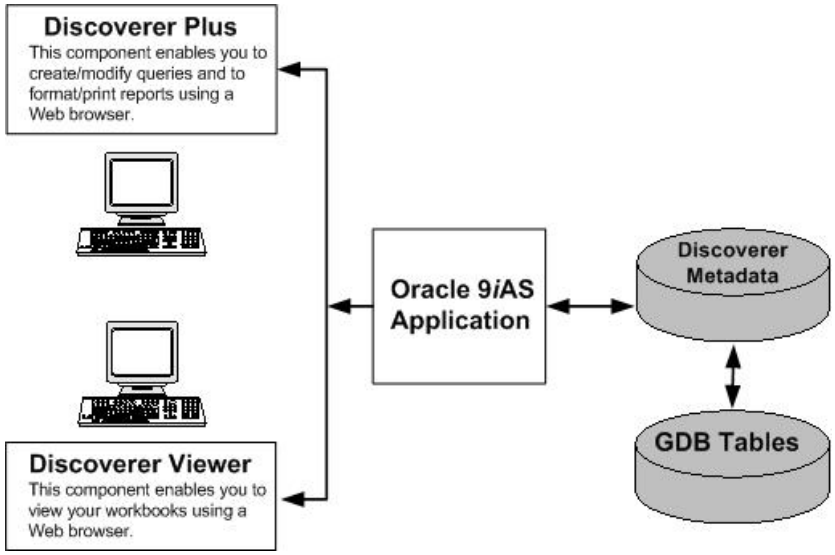
- Query features will help you create, run, and edit your ad hoc queries for searching and retrieving data from GDB tables. You can build your query either from scratch or by using a pre-defined query template.
- Visual interface includes pull-down menus, icon shortcuts, and a "Workbook Wizard" feature to help you graphically build your query statements by dragging and dropping individual components of the statement into a workbook window. After you finish building your query, Discoverer converts it into an SQL statement and executes it on the appropriate GDB tables.
- Report-design features help you format and view your query results using either pre-defined report templates or a customized report layout that you design yourself.

In a nutshell, Discoverer helps you execute database queries SQL-style without having to understand complex database concepts, macro-authoring, or the SQL language.

Discoverer's Architecture

While the phrase "query tool" may imply that Oracle Discoverer™ is just one piece of software, it actually is not. Oracle Discoverer™ actually consists of a number of components. Of all these components, there are four which are directly relevant to end users like you; these components make it possible for you to use Discoverer to query the data in the GDB's tables:

- **Discoverer Plus** – This component enables you to create and run queries and to output reports within a Web browser.
- **Discoverer Viewer** – This component enables you to view the workbooks (queries) that are either set up by your database administrator or created by you (which you do using Discoverer Plus).
- **Oracle 9iAS Application** – This component is the Oracle relational database application itself. It provides services and an HTTP server feature, and serves as the "middle-man" between your workstation and the virtual GDB tables.
- **Discoverer Metadata** – Also known as the "end-user layer", this component serves as a kind of translator, allowing you to use ordinary English terms instead of SQL and database languages to do your query and report-generation work. The Metadata then translates your plain-English instructions into SQL statements that are understandable by Oracle 9*i*AS.



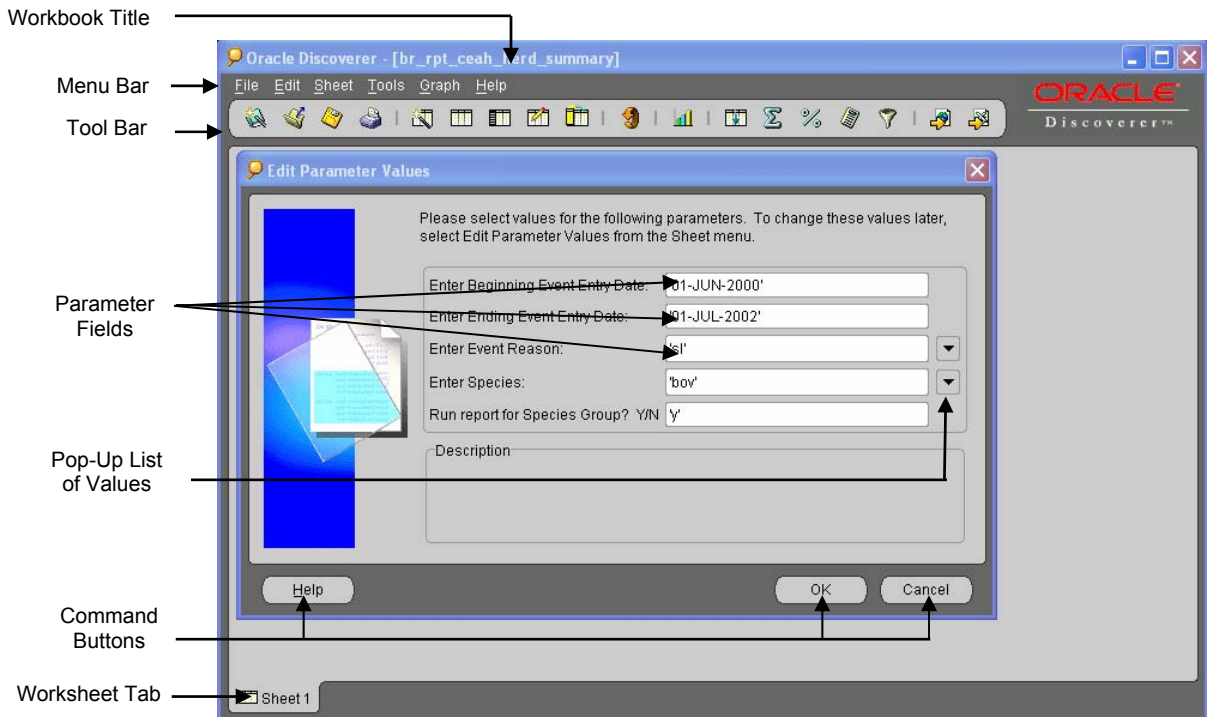
- **GDB Tables**– These tables contain all of the data that you will be querying. The GDB is a "read-only database", meaning that you cannot use the Discoverer product to add, remove, or alter any of the data in the GDB. You are using Discoverer to query, retrieve, and format this data only.

Discoverer's User Interface

As mentioned earlier, Discoverer provides a visual interface with a variety of features to help you do your data-query and report-generation work as efficiently as possible. Rather than having to memorize SQL statements and write SQL macros, you will be able to use Windows-like pull-down menus, pop-up lists of values, icon shortcuts, and more to do the same work.

In later chapters of this manual, you will see examples of all of the different visual interface features in Oracle Discoverer™. But, to introduce you to some of these visual features, shown below is one example of a Discoverer screen that you will be doing much of your work in.

Example – A Workbook Query Parameter Form



How Oracle Discoverer™ Works With the GDB

Even with Discoverer's visual interface and Metadata "translator" services, there is no avoiding the fact that you are working with databases. This is a subject that can be confusing because it entails often complex models and concepts, along with its own unique terminology. So, to help you learn Discoverer more easily, this section discusses some fundamental database concepts and terms as they relate to Discoverer.

Discoverer Terminology

Even though you do not need to be familiar with database concepts in general, this manual does use several Discoverer-specific terms that you should know about:

Field	The same as a column in a table. Contains a specific type of GDB data (e.g., a premises ID, a status code, or a disease name).
Query	A search question that you formulate with Discoverer's visual interface and then send to the GDB to be executed.
Record	The same as a row in a table. Contains a set of related data (i.e., the record for a single premises would contain this set of related data: street address, city, state, and zip code information).
Report	An electronic or hardcopy output which contains the results in a Discoverer worksheet. You can specify the appearance and layout of a report by either using one of Discoverer's pre-defined report templates or by modifying a template to meet your unique needs.
Worksheet	A set of GDB data retrieved in response to a Discoverer query. This retrieved data is organized in a table-like format (typically a spreadsheet).
Workbook	A collection of worksheets, all related in some way, but organized to show different perspectives. *Example 1:* You create a workbook that contains data for a tuberculosis (TB) animal disease program in your state for the year 2003. Within this workbook, you have a separate worksheet for each animal species in your program: -- Worksheet 1 contains data for cattle in the 2003 TB program -- Worksheet 2 covers horses in the 2003 TB program -- Worksheet 3 covers goats in the 2003 TB program *Example 2:* You create a workbook for your state's PRV animal disease program. Each worksheet in the workbook contains a different year's data. *Example 3:* You create a workbook that contains the queries you do on a regular schedule: -- Worksheet 1 contains a PRV query for a monthly state report -- Worksheet 2 contains a BR query for a weekly report -- Worksheet 3 contains a BR query for the monthly national VS report
Workbook Wizard	An interactive document that guides you through the steps of common Discoverer tasks, such as creating a query or customizing a report's layout.

What is in a Database?

A *database* is simply a collection of pieces of information (data). All of these data are related in some way.

How a database organizes its data depends on the structure set up for that database. There are many different structures that can be used to organize a database. Oracle 9iAS and the GDB use the *relational* structure; hence, they are known as *relational databases*.

A relational database has the following features:

- Stores its data within *tables*, which are made up of *columns* and *rows*. (As explained in the previous section, a table column is the same as a field or type of information. And a row is the same as a single record.)

  A table contains data that shares a common purpose, subject, or theme. In the GDB, for example, the **Premises Table** contains different kinds of data, all of which define the physical attributes of a premises in some way. Some of the columns (fields) in this table are listed below:

prem_ID	(a unique identification number for a specific premises)
prem_address	(the street address for a specific premises)
front_gate_latitude	(the geological coordinate for the entrance to a specific premises from a public-access road)

- Uses rules to govern relationships between the tables in the database. Some of these rules dictate how individual tables can link or combine their data together. (See the next section for more details.)
- Requires a programming language (such as SQL) to access the information in the database. (Remember, Discoverer is able to translate your plain-English query requests into SQL so that you can retrieve data from the GDB.)

To avoid having to write an SQL macro or query to accomplish this data-retrieval from several tables, you will be using Discoverer instead.

What is in the GDB Tables?

As mentioned earlier, this initial Discoverer release allows you to run Discoverer queries on all of the GDB tables. The table below introduces you to several of these tables and their contents:

Table Name and Purpose	Table Prefix	Partial List of Fields in This Table
Event_Summary Contains data about an event (such as an inspection, a test, an inventory, or a tissue collection exercise) that occurs at a premises.	**ES**	ES Event Date - event date ES Species DZ - the animal species tested ES Event Type DZ - the type of event ES Nr Anim - the number of animals involved in the event
Premises Contains data about a physical property (a premises) where an individual animal or animal group currently resides.	**PR**	PR Prem Id - a premises identification number PR Prem Address - a premises address PR Prem City - a premises' city PR Contact Lname - a contact person's last name
Premises_Supplemental Contains data about any species residing on a premises and about any operations conducted at that premises.	**PRS**	PRS Species - the species residing on a premises PRS Prem Type DZ - the type of operation conducted at that premises (i.e., a dairy or feedlot)
Sample Contains details about an individual animal or animal group involved in an event.	**SA**	SA Id1 DZ - an eartag identification number for an individual animal SA Age - the age of an animal SA Nr Sus - the number of animals in a group that received a "suspect" test result
Status Contains data about a **condition**/ **status level** assigned to a herd. Examples of herd **conditions** are a *quarantine* and an *investigation*. Examples of **status levels** are *infected* and *certified free*.	**ST**	ST Status Code DZ - the current status level of a herd ST Issue Date - the date on which a herd was assigned its current status ST Release Date - the date on which a herd moved from one status level to another level ST Issue Rsn - the reason for moving a herd from one level to another
Test_Result Contains details about any testing performed on an individual animal or animal group.	**TR**	TR Test Name DZ - the name of a specific test TR Disease - the results for a specific test

As you can see from the above chart, each table contains fields and information that are unique to that table. So, you could create a query that generates a report containing data on the age, breed, and sex for animal herds in one state. This query is known as a one-table query, because all of its data comes from the **Sample Table** alone. Your report would not contain any data typically stored in other tables, such as **Events_Summary** or **Status**.

But suppose you want to generate a report that includes data from several different tables? For example, you might want a report that summarizes not only the age, breed, and sex of animal herds in one state (available only in the **Sample Table**), but also the test results for all of those animals (found in the **Test_Results** Table).

Discoverer lets you run a multi-table query with, a technique called a *table join*. A table join enables you to merge the data of two or more tables into one table. This helps you avoid having to write an SQL macro or query to accomplish this data-retrieval from several tables.

How Do You Use Table Joins in Discoverer?

For the Discoverer initial release, there are two kinds of table joins that you can use:

- Pre-defined table joins that appear in the Discoverer **Item Selector Screen**
- Table joins that are not pre-defined, but which you can create manually

Pre-Defined Table Joins

In the Discoverer initial release, three table joins have already been pre-defined for your use. These three table joins are listed below:

Name of Table Join	Description of the Table Join's Contents
Premises **&** Status **&** Regionalization join **	Contains all of the fields in these three tables.
Premises **&** Event_Summary & Regionalization join **	Contains all of the fields in these three tables.
Sample **&** Test_Results join	Contains all of the fields in these two tables.

** The **Regionalization Table** and its fields are available only within this table join. There is no standalone **Regionalization Table** available in the Discoverer initial release for now.

To use any of these table joins, you simply select one and add it to the Discoverer workbook you will be working in. Once you do, you automatically have access to all of the data in every table in the join. For example, if you add the Premises **&** Status **&** Regionalization join to your workbook, you will immediately have access to all of the data in these three tables.

(You will learn how to select and use table joins appear in the procedures documented in Chapters 5, 6, and 7 of this manual).

Note: Additional pre-defined table joins may be created in future releases of Discoverer for GDB. You can always view all available table joins in the **Discoverer Item Selector Screen**. Once at this screen, look for a set of tables connected by the "&" symbol.

Manual Table Joins

The GDB also allows you to join specific tables in different ways. These table joins have not been set up for you; you create them manually by selecting the appropriate items (indicated by the word "to" in their titles) in the Discoverer **Item Selector Screen**.

But be aware that the Discoverer initial release allows you to manually create only certain table joins. Not all tables can be joined to every other table.

The table below lists the table joins that you are permitted to create manually:

Name of Table Join	What This Table Join Does
Sample **to** Premises	-- Automatically joins the Prem_ID field in the Sample Table to the Prem_ID field in the Premises Table. -- Automatically joins the Prem_State field in the Sample Table to the Prem_State field in the Premises Table.
Sample **to** Premises_Supplemental	-- Automatically joins the Prem_ID field in the Sample Table to the Prem_ID field in the Premises Table. -- Automatically joins the Prem_State field in the Sample Table to the Prem_State field in the Premises Table.
Sample **to** Event_Summary	-- Automatically joins the ES_NR field in the Sample Table to the ES_NR field in the Event_Summary Table. -- Automatically joins the Entry_State field in the Sample Table to the Entry_State field in the Event_Summary Table.
Sample & Test_Result join **to** Premises & Event_Summary & Regionalization join	-- Automatically joins the ES_NR field in the Sample Table to the ES_NR field in the Event_Summary Table. -- Automatically joins the Entry_State field in the Sample Table to the Entry_State field in the Event_Summary Table.
Sample & Test_Result join **to** Premises & Status & Regionalization join	-- Automatically joins the ES NR field in the Sample Table to the ES_NR field in the Event_Summary Table. -- Automatically joins the Entry_State field in the Sample Table to the Entry_State field in the Event_Summary Table.
Test Result **to** Event_Summary	This is an example of a table join that is currently not available in the Discoverer initial release.

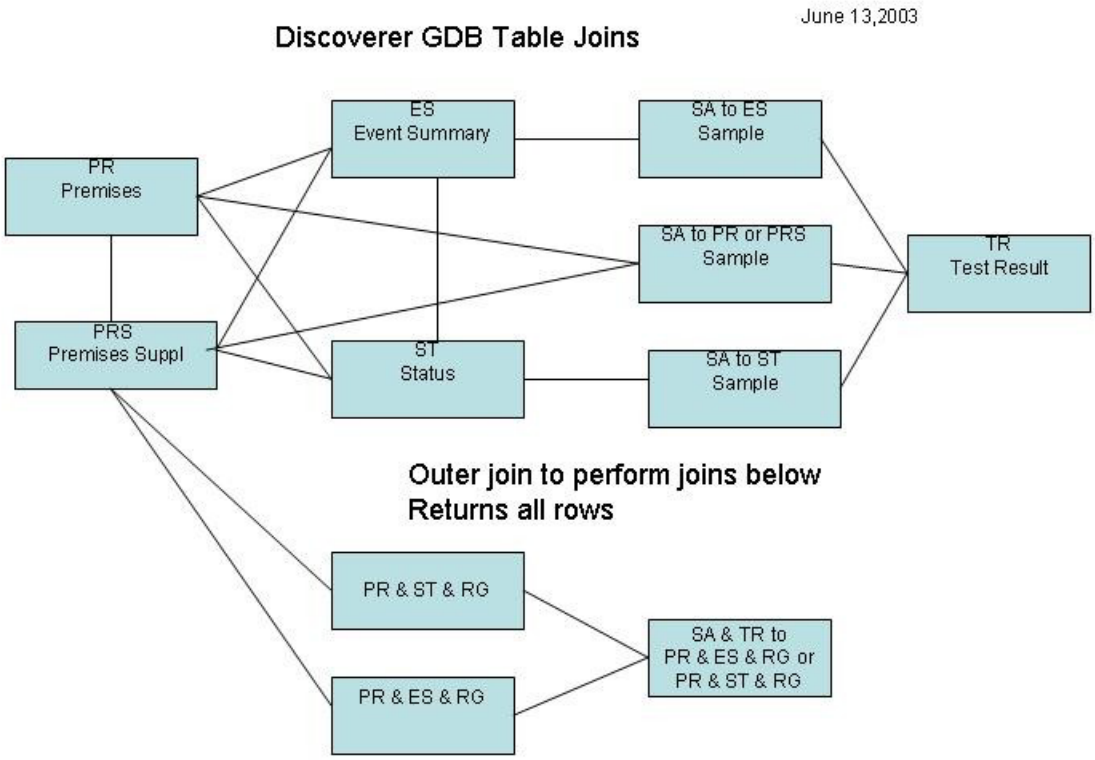
Creating a table join manually is a two-step process. You first select a permitted “a to b” table join. You now have the fields for just the “a” table. You then need to specify the “b” table in order to get the fields for that table as well.

For example, if you want to get data from both the **Status Table** and the **Sample Table**, you will need to do the following in the Discoverer **Item Selector Screen**:

1. Select and add the “Sample to Status” table join to your workbook. (This gives you the fields from the **Sample Table** only).
2. Select and the "Status" Table to your workbook. (This gives you the fields from the **Status Table** only.

   You now have in your workbook all of the fields from both tables.

The diagram below illustrates all of the possible table joins you can use in your Discoverer queries of the GDB tables:



GDB Business Areas

The GDB is called the *Generic* Data Base because it provides common data-entry, storage, retrieval, and reporting services for a variety of Veterinary Services (VS) animal disease control programs, rather than for just one particular program. But when you write or run a Discoverer query, you may only want to focus on a single animal disease program. So, the first task you do when writing a query is to specify which program(s) you want to retrieve data from.

In Discoverer, each animal disease control program exists as a *Business Area* (somewhat like a subset of the overall GDB database). A Business Area contains any data that might be relevant to that program. For example, the Tuberculosis Business Area would contain data for any tests that are done on Tuberculosis animal samples, but not any data for any tests that are done on Scrapie animal samples.

For this initial Discoverer release, you can work in any of the five Business Areas listed below:

Disco_ALL	The workbooks in this area will generate reports using data from the GDB's BR, PRV, SCR, and TB animal disease control programs.
Disco_BR	The workbooks in this area will generate reports using data from the GDB's Brucellosis animal disease control program only.
Disco_PRV	The workbooks in this area will generate reports using data from the GDB's Pseudorabies animal disease control program only.
Disco_SCR	The workbooks in this area will generate reports using data from the GDB's Scrapie animal disease control program only.
Disco_TB	The workbooks in this area will generate reports using data from the GDB's Tuberculosis animal disease control program only.

In future releases of Discoverer, additional Business Areas will be added, such as **Disco_CWD** (Chronic Wasting Disease) and **Disco_JOH** (Johne's Disease). We welcome your suggestions on which animal disease programs you would like to see added.

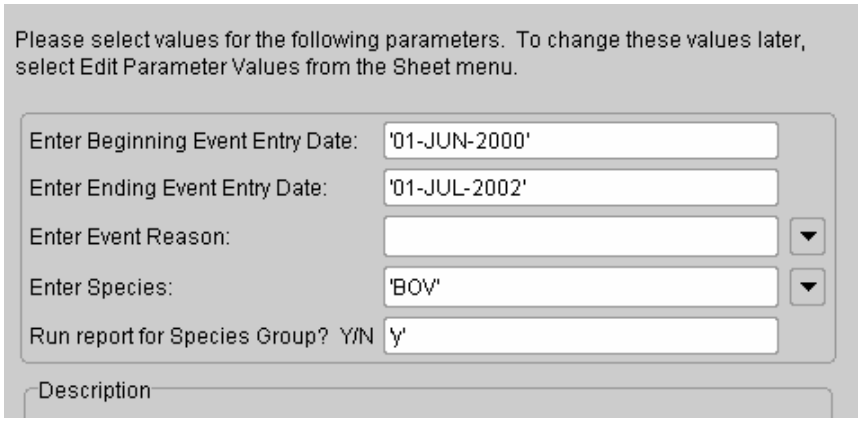
GDB Species Groups

Most VS animal disease control programs gather data for more than one species that is participating or enrolled in that program. Often, these sub-species are categorized into a species group. The table below lists the GDB species groups and their sub-species:

Name of Species Group	Sub- Species In This Group	
BOV	**BOV**	Bovine
	BIS	Bison
CAM	**CAM**	Camelid
CAP	**CAP**	Caprine
CER	**CER**	Cervidae
	DER	Deer
	ELK	Elk
	FAL	Fallow Deer
	MDR	Mule Deer
	MSE	Moose
	RD	Red Deer
	RND	Reindeer
	WTD	White-Tail Deer
EQU	**EQU**	Equine
FER	**CSW**	Captive Swine
	FER	Feral Swine
NWC	**ALP**	Alpaca
	GUA	Guanco
	LLA	Llama
	NWC	New World Camelid
	VIC	Vicuna
OTH	**OTH**	Other Species
OVI	**OVI**	Ovine
POR	**POR**	Porcine

Note: The species that appear in the **Name of Species Group** column above are also considered to be stand-alone species by themselves. This is important to keep in mind, as it will affect the data results you get in your Discoverer queries. (More about this below.)

When you run a Discoverer query, in most cases you will be able to specify whether you want data for all of the sub-species within a species group, or data for just one particular sub-species. The screen image below shows the species-related prompts you would typically see when running most Discoverer queries:



How you answer these prompts will determine the kind of data results you will get. The following guidelines will help you get the exact data results you want:

The Prompts You See	Data You Enter	Example	The Results You Get
Enter Species: **Run report for Species Group?**	'*species_group*' 'Y'	'CER' 'Y'	Data for all sub-species (such as CER, DER, ELK, FAL, MDR, etc.) in this species group
Enter Species: **Run report for Species Group?**	*'species_group'* 'N'	'CER' 'N'	Data for only the species (CER) you specified
Enter Species: **Run report for Species Group?**	*'sub-species_A'* 'Y'	'ALP' 'Y'	No data at all
Enter Species: **Run report for Species Group?**	*'sub-species_A'* 'N'	'ALP' 'N'	Data for only the sub-species (ALP) you specified

Chapter 3:
Installing Oracle Discoverer™

This chapter contains the procedures to follow for obtaining your Oracle Discoverer™ login information and then initially configuring the Discoverer product for your system.

In this document, you will learn about the following:

Obtaining Your Login Information

To access and enter the Oracle Discoverer™ website, you will need a user account set up for you. Specifically, you will need a user name, a password, and a database designation.

You can request a user account to be set up for you by contacting either of the individuals below who are members of the Veterinary Services Application and Information Management team (VS-AIM):

Mark Koeneker	Telephone: 970.494.7301 E-mail: mark.j.koeneker@aphis.usda.gov
Sandra Hill	Telephone: 970.494.7298 E-mail: sandra.k.hill@aphis.usda.gov

Setting Up Oracle Discoverer™ on Your System

Before you can use Discoverer, a plug-in utility called Oracle JInitiator™ must be installed on your system. This plug-in enables Oracle Discoverer™ to work within your web browser.

Note: If your computer runs:
-- under Windows 2000/XP/2003, then Oracle JInitiator™ must be installed by someone who has administrator-level privileges.
-- under Windows 95/98, then Oracle JInitiator™ can be installed by someone who has local privileges.

There are two ways to install Oracle JInitiator™ on your system:

- If you system already has a version of the Generic Data Base (GDB) installed on it, check with your system administrator.
    1. Ask if he has already upgraded your system to run the newest version of the GDB (8i.5, released in January 2004).
    2. Ask if he also installed the optional Oracle JInitiator™ plug-in as part of this upgrade. If he has not, request that he do so.

       Once both GDB 8i.5 and Oracle JInitiator™ have been installed on your system, then you can skip directly to Step 2.1 in this chapter.
- If you do not have the GDB installed on your computer, you will need to manually download the Oracle JInitiator™ plug-in utility onto your system. To do this installation, start with Step 1.1 below.

Manually Installing Oracle JInitiator

1.1 At your computer desktop screen, launch the Netscape Navigator web browser.

1.2 In the browser's **Location** field, enter the following URL for Discoverer's website:

http://cofcas15:7778/discwb4/html/english/netscape/start_nn.htm

The **Discoverer Welcome Screen** shown at right will appear.

1.3 Click your pointer anywhere on the **Click to Start** magnifying glass image.

1.4 A second welcome screen, shown at right, will appear. Just above the white text area will be several hyper-links. Click on the **`Back to Setup`** hyper-link.

1.5 A message box will appear, asking if you want to install Oracle JInitiator™ now. Click on **`Yes`**.

1.6 A confirmation message box appears, giving you a choice of how you want to download the Jinitiator executable file (**`jinit11811.exe`**, dated 11/21/2003).

a. Click on **`Save to disk`**.

b. In the next message box, specify in which directory (folder) on your local drive the executable file should be placed.

c. Click on **`Finish`**. A progress window shows the Jinitiator executable file being downloaded into the directory you specified.

1.7 Now return to your computer desktop, find this folder, and double-click on the **`jinit11811.exe`** file to launch it.

1.8 A **Welcome to the Oracle Jinitiator 1.1.8.11 Setup Program** screen will appear.

a. Click on the **Next** command button.

b. A **Setup will install…** screen will appear. This screen will display the directory where the Jinitiator plug-in will be installed. For most installations, this directory will be the following:

```
C:\Program Files\Oracle\Jinitiator 1.1.8.11
```

c. Click on `Next`. The installation process begins.

d. When the Installation Complete message appears, click **OK**.

1.9 If the Netscape Navigator browser window is still open on your computer desktop, close it.

1.10 Re-start Netscape Navigator and use it to go to the Oracle Discoverer™ website at the same URL mentioned earlier:

http://cofcas15:7778/discwb4/html/english/netscape/start_nn.htm

1.11 When the Oracle Discoverer™ home page appears, you will see a message box, **Starting Product: Discoverer 4i Plus. Downloading program components.**

Wait for this download to finish.

1.12 Now go directly to Step 2.3 in the next section.

Completing Discoverer's Security Check

2.1 At your computer desktop screen, launch the Netscape Navigator web browser.

2.2 In the browser's **Location** field, enter the following URL for Discoverer's website:

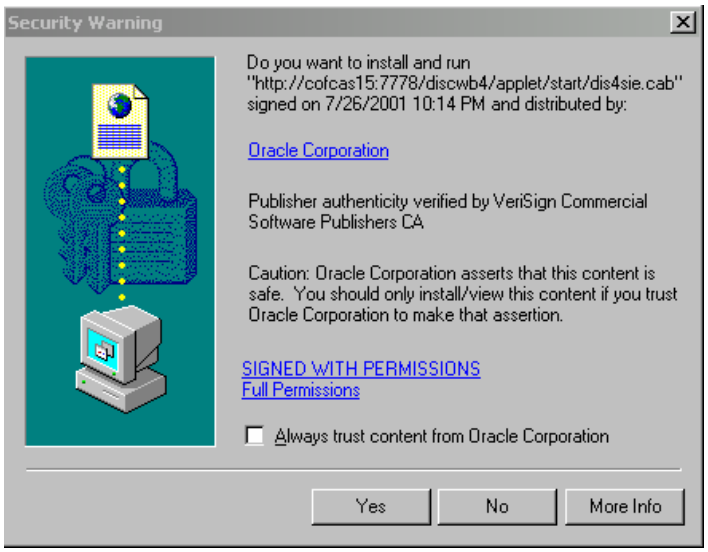
http://cofcas15:7778/discwb4/html/english/netscape/start_nn.htm

The **Discoverer Welcome Screen** shown below will appear.

2.3 Click your pointer anywhere on the **Click to Start** magnifying glass image.

2.4 A second welcome screen, shown at right, will appear.

2.5 Wait a few seconds until the following security certificate appears. On this certificate, click [Yes] to accept its conditions.



- *If this is your first time using Discoverer*, you will next be presented with two more security certificates. Click [Yes] in these certificates as well.
- *If you have used Discoverer before*, you will still see this first security certificate each time you log on. However, you can avoid the other two security certificates by checking the **`Always trust content from Oracle Corporation`** option shown at the bottom of this first certificate. Click in the box to make a check mark appear.

2.6 After you have accepted the security certificate(s), Discoverer will start loading. This may take a few minutes. Then the **Connect to Oracle Discoverer** screen (shown below) will appear.

2.7 In this login screen, do the following:

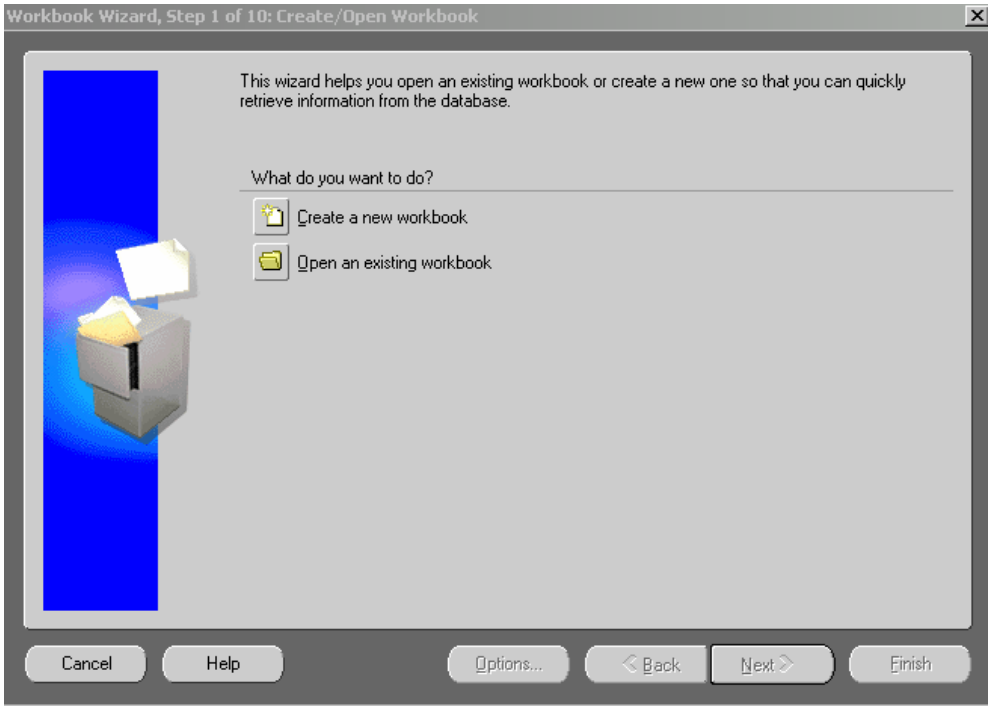
a. Enter your assigned username. Press TAB.

b. Enter your password. Press TAB.

c. Enter the name of your database.

d. Click on [Connect].

The **Workbook Wizard, Step 1 of 10** screen will appear.



2.8 At this point, you can now do any of several tasks:

To Do This Task…	Go To…
Use a pre-defined workbook to run a query	Chapter 6
Create a new workbook using Discoverer's Workbook Wizard	Chapter 5
Create a new workbook unassisted	Chapter 7

Chapter 4:
Writing Queries with Discoverer

Oracle Discoverer™ is a very flexible ad hoc query tool that can be used in a variety of ways to accomplish your queries and report-generation tasks. This chapter will describe the three primary methods you can execute to run Discoverer queries on GDB data. But, regardless of which method you use, the general workflow (sequence of tasks) will be the same.

The topics covered in this chapter appear below:

Three Methods for Constructing a Discoverer Query

Discoverer provides a variety of methods for constructing (building) a query, in order to assist all users, whether they are new or experienced users of Oracle databases or of Oracle Discoverer™. These three methods are described below:

Method	Intended Audience	Description of Method
Create a new workbook (query) from scratch with the interactive **Workbook Wizard** feature.	Beginning users	This method leads you step-by-step through a series of dialog boxes as you construct a new workbook. This method is described in Chapter 5.
Open and use a pre-defined workbook available in the GDB Workbook Library.	Experienced users	This method enables you to pick an existing workbook that already contains the query you want to run. You can either: • run this query "as is" • save this query under a new name, modify its parameters, conditions, calculations, etc., and then run it This method is described in Chapter 6.
Create a new workbook unassisted within the Discoverer **Edit Worksheet Screen.**	Experienced users	This method lets you construct a new workbook from within a single master window, with tabbed pages to various dialog boxes where you can customize various aspects of your query. This method is described in Chapter 7.

Once you start building up a collection of workbooks, you then need to learn how to manage them. Procedures for refining, renaming, deleting, duplicating, and printing workbook properties are found in Chapter 8.

Workflow for Constructing a Query

A Discoverer query can be simple or complex, depending on the data you are querying, the results you expect to retrieve, and the report design you want to output. But every Discoverer query can be constructed by completing the same set of tasks. And you will execute this same task set, regardless of which method (described in the previous section) you use.

At minimum, there are three tasks that you should complete for each Discoverer query you write. For more complex queries, you may need to complete up to ten tasks total.

Simple Query	**Mandatory Tasks You Must Do:** 1. Choose a report template (report layout/appearance). 2. Select the data items from the appropriate Business Area to store in your workbook and to use in your query. 3. Specify the appearance and layout of the data itself within the report template.
Complex Query	**Mandatory Tasks You Must Do:** 1. Choose a report template (report layout/appearance). 2. Select the data items from the appropriate Business Area to store in your workbook and to use in your query. 3. Specify the appearance and layout of the data itself within the report template. **Optional Tasks You Can Do Or Not Do:** 4. Define any necessary conditions for your query. 5. Define any necessary sort criteria. 6. Define any necessary calculations that are appropriate in your query. 7. Specify any formulas you want Discoverer to use in calculating totals. 8. Define any necessary percentage values for your query. 9. Define any parameters. 10. Specify how you want Discoverer to format and display the data, the report headings, and any numerical values in the Results Screen and/or in the output report.

Chapter 5:
Using Discoverer's Workbook Wizard

This chapter introduces you to an interactive feature in Oracle Discoverer called the *Workbook Wizard*. This wizard is a tool that you can use to learn how to build a Discoverer workbook and query step-by-step.

The topics covered in this chapter appear below:

Exercise 1:
Creating a One-Table Query

In this exercise, you will learn how to use the interactive Discoverer Workbook Wizard feature to do two tasks:

- Set up a worksheet that contains all of the database items you might want to search for in generating a report
- Create a new search query

Shown below is an SQL statement.

```
1      SELECT prem_id, nr_neg, nr_sus, nr_pos
2      FROM gdb_event_summary
3      WHERE event_type = 'TEST'
4        and species in ('BOV','BIS')
5        and disease = 'BR'
6        and event_date between
         to_date ('&begindate','dd-mon-yyyy') and
         to_date ('&enddate','dd-mon-yyyy')
7*       and event_rsn = 'OTH'
```

In plain English, this SQL statement asks the GDB to generate a list of prem_ids and the number of bovine/bison animals that tested either negative, suspect, or positive for brucellosis in private sale-testing. If you were to execute this SQL statement, the GDB would prompt you to specify the beginning and ending dates of the time period for the data you want to retrieve.

The rest of this exercise will show you how to use Discoverer to construct and execute the same query described above. But, instead of using SQL, you will use Discoverer's visual interface and interactive tool, the Workbook Wizard.

1.1 If you have not already logged into the Oracle Discoverer website, do so now by doing the following steps:

a. At your computer desktop screen, launch the Netscape Navigator web browser.

b. In the browser's **Location** field, enter the following URL for Discoverer's website:

http://cofcas15:7778/discwb4/html/english/netscape/start_nn.htm

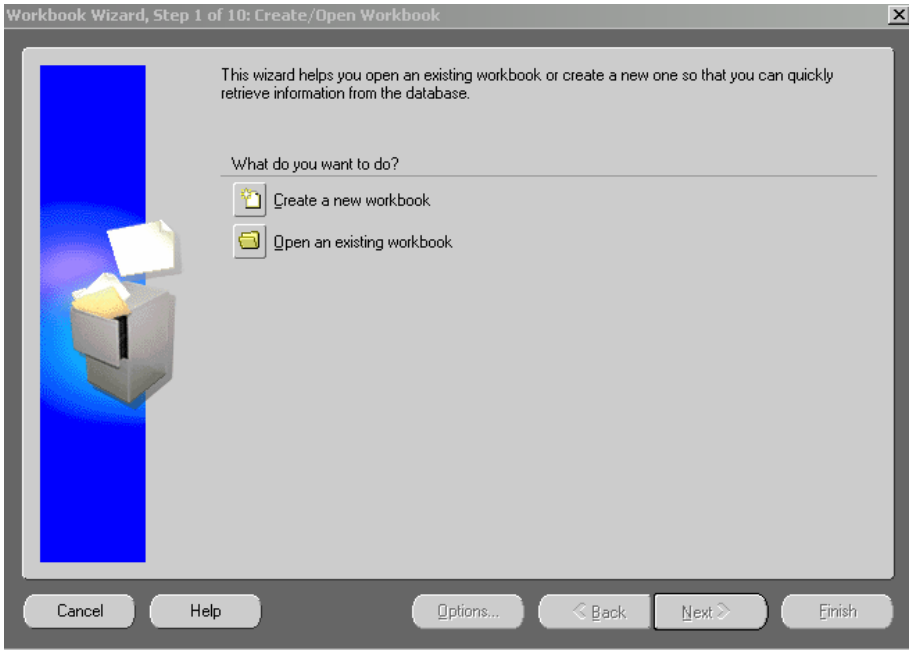
c. If the **Discoverer Welcome Screen** shown appears, click on the **Click to Start** magnifying glass image.

d. If any security certificates appear, accept each one.

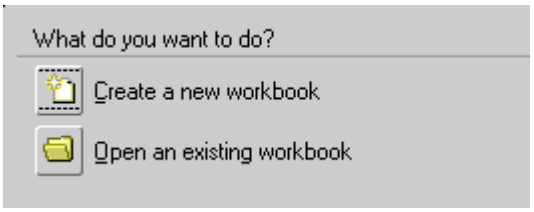
e. The **Connect to Oracle Discoverer** screen (shown below) will appear.

f. In this login screen, enter your username, password, and database name. Then click on [Connect].

1.2 The **Workbook Wizard, Step 1 of 10** screen will appear.

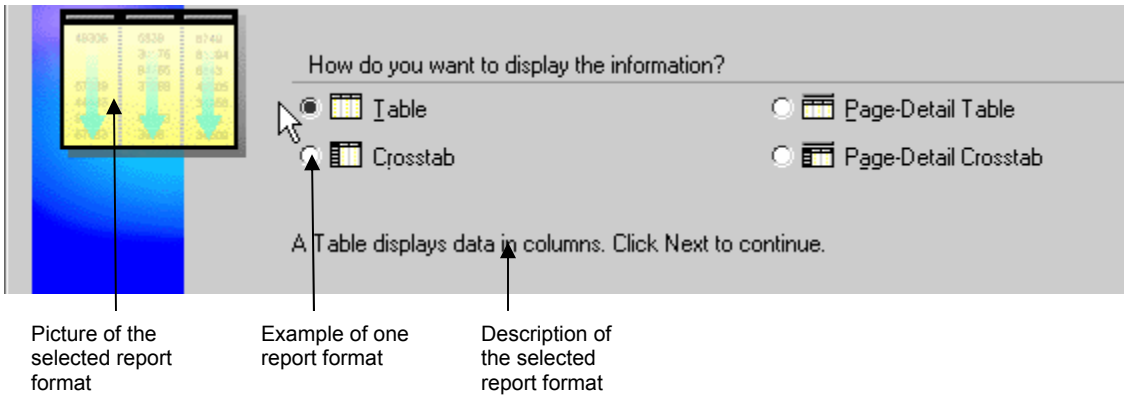


1.3 Under the first question, click on the **`Create a new workbook`** option.

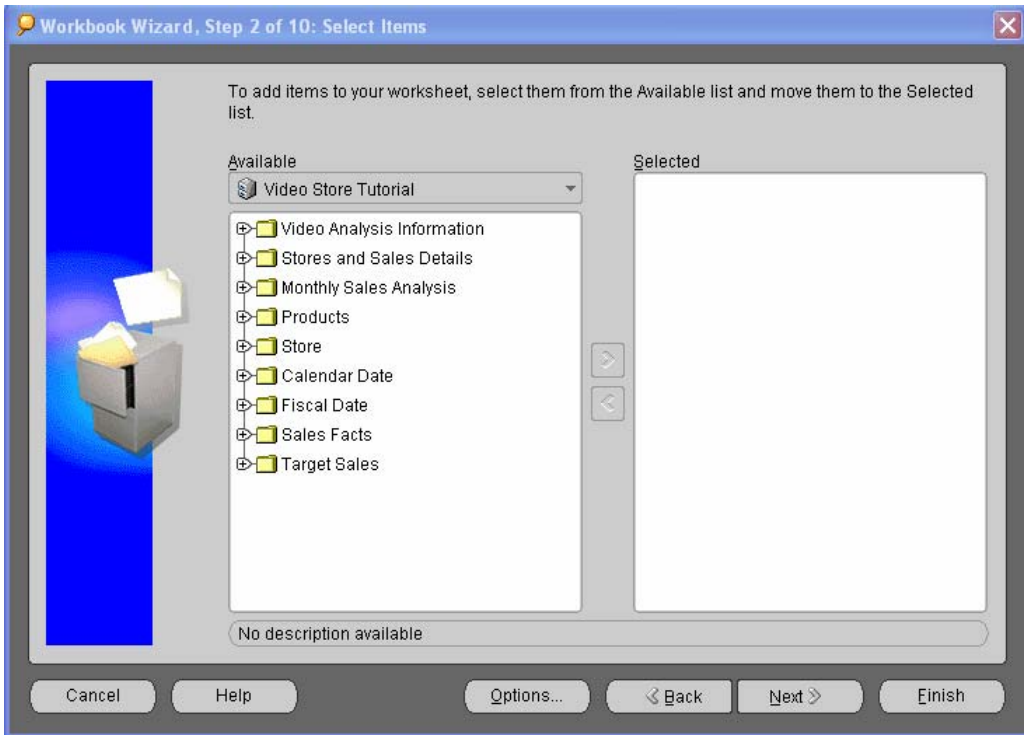


1.4 This screen then displays a second prompt, asking you to select a default report layout design for your new worksheet. The layout you choose will be used to format any query results you generate while in this worksheet. (You will be able to customize this report layout later.)

For now, select the **Table** option.



1.5 Click the [Next >] button. The **Workbook Wizard, Step 2 of 10** screen appears.



1.6 This screen is the **Item Selector Screen**. Each time you create a new workbook, you will use this screen to specify which data items you want to use in the workbook. Think of your workbook as a folder in which you store every possible data item that you might need to generate reports about.

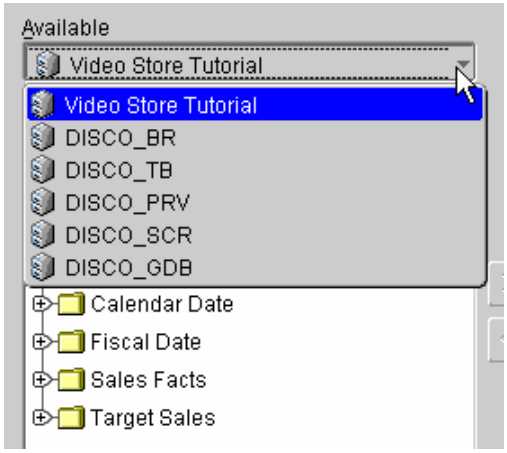
In this initial Discoverer release, you can choose from any of five GDB-related Business Areas (which might also be considered subsets of the GDB database):

Disco_ALL	the Discoverer_All_Diseases Business Area
Disco_BR	the Discoverer_Brucellosis Business Area
Disco_PRV	the Discoverer_Pseudorabies Business Area
Disco_SCR	the Discoverer_Scrapie Business Area
Disco_TB	the Discoverer_Tuberculosis Business Area

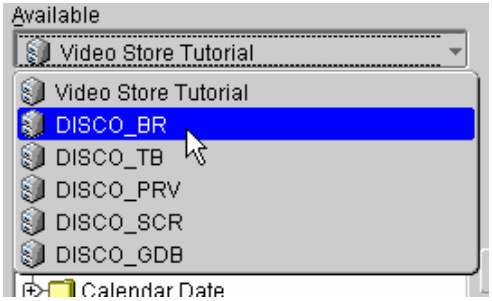
Each Business Area represents one of the VS animal disease control programs and contains any data that might be relevant to that disease program. (The **Disco_ALL** Business Area will contain data from all four individual disease programs listed above.)

Depending on your situation, your system administrator may have granted you access to other databases or Business Areas besides those listed above. Because you want to use just one particular GDB Business Area for this exercise, you need to select it.

a. Directly beneath the **Available** column name, click on the down arrow. A drop-down list of any databases or Business Areas available to you will appear.

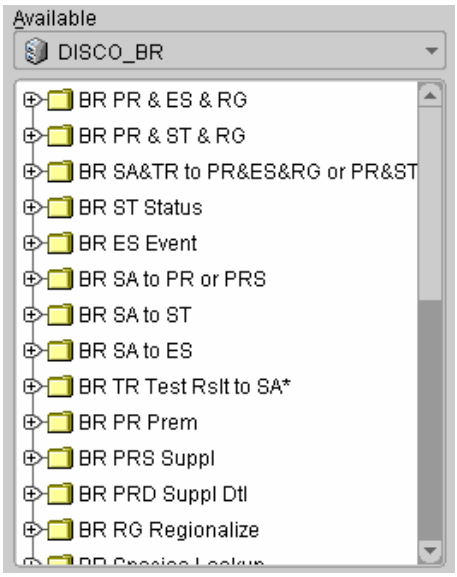


b. Highlight the **DISCO_BR** database choice.



See how the **Available** column's contents (shown at right) now changes to display only those items belonging to this Business Area? Each yellow folder represents one of the following:

- a single GDB table (**`BR ES Event`**)
- a group of pre-joined tables (**`BR PR & ST & RG`**)
- a permitted table join (**`BR SA to ST`**)



1.7 Click on the plus sign (+) next to the **`BR ES Event`** table folder to open it. The folder will expand to show all of the fields (data items) in it.

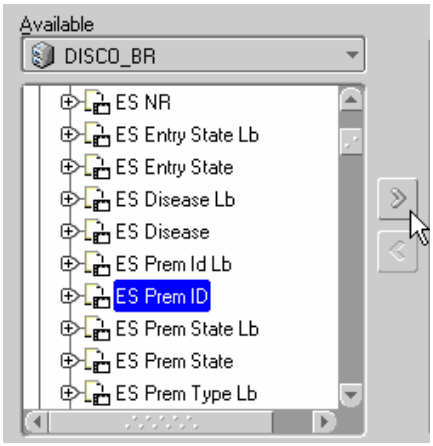
1.8 You now want to copy several fields in this folder over to the **Selected** column.

a. Click on the item name, **`ES Prem ID`**.

b. Click on the Add button (>), as shown in the example at right This field now appears in the **Selected** column.

c. Do Steps a-b above for each field listed below:

`ES Nr Neg`
`ES Nr Sus`
`ES Nr Pos`



Note: Data items ending with an **`Lb`** suffix (such as **`ES Prem Id Lb`**) refer to the label names that are attached to the data fields found in electronic forms and in any reports that you generate. Because they are label names, they do not contain any actual data.

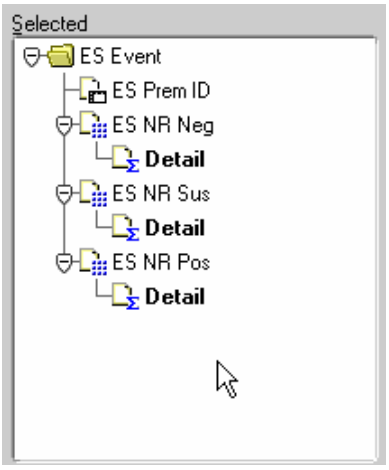
However, you can and should query these data items that have the **`Lb`** suffix, because they help to further define the origin of the data in non-**`Lb`** fields. For example, if you did a search query for specific animal identification data, the records retrieved could indicate the following:

-- the **`Id1_Lb`** data item = **Id1(eartag):**
-- the **`Id1`** data item = *the actual eartag number*
-- the **`Id2_Lb`** data item = **Id2(backtag/bangle):**
-- the **`Id2`** data item = *the actual bangle number*

1.9 In the **Available** column, click on the minus sign (-) to close the **`BR ES Event`** folder.

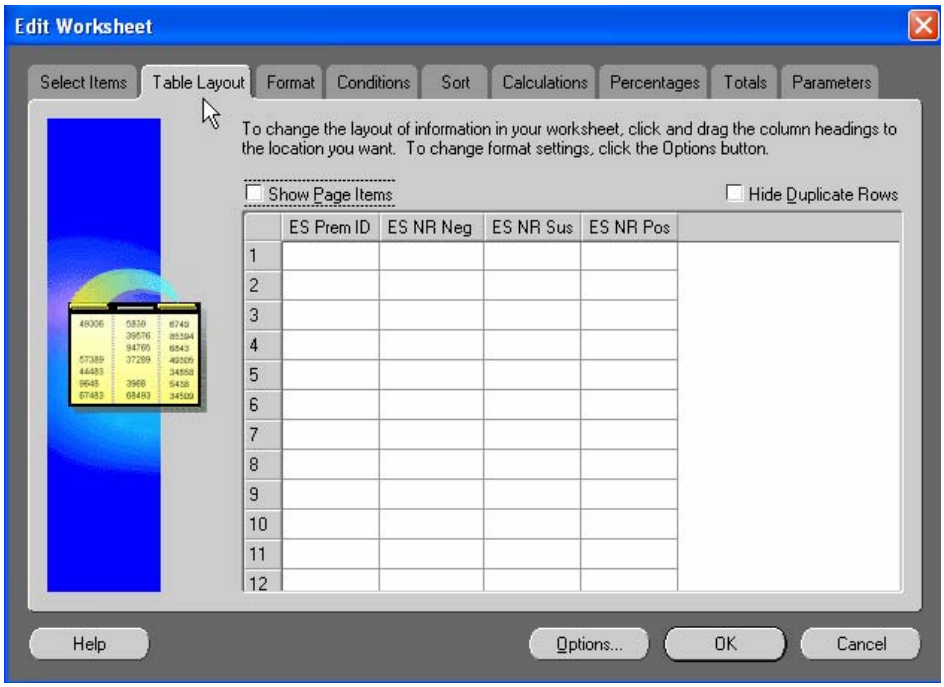
Your worksheet's **Selected** column should now look like the example shown at right.

You have just completed the two mandatory tasks required for each new Discoverer query that you write (selecting a report template and selecting the data items for your workbook).



1.10 At the bottom of the **Workbook Wizard, Step 2 of 10** screen, click [Next >]. The next **Workbook Wizard** screen will appear.

1.11 In the **Workbook Wizard, Step 3 of 10** screen, you now see the default report layout (**Table**, in this case) that you specified back in Step 1.4.



1.12 In the **Workbook Wizard, Step 3 of 10** screen, you can now change the layout of your default report, if desired.

> Note: Steps 1.12b and 1.12c must be done if you wish to generate hardcopy printouts of just part of a report. At the present time, Discoverer only allows you to print an entire report, but not portions of it. Because database search queries can often generate lengthy reports, you should consider doing these two steps to avoid the problem of printing a large number of unwanted report pages.

a. To rearrange the order in which the columns of the report appear, you can click-and-drag a column heading from its original position to another position. Feel free to try this now, if you wish.

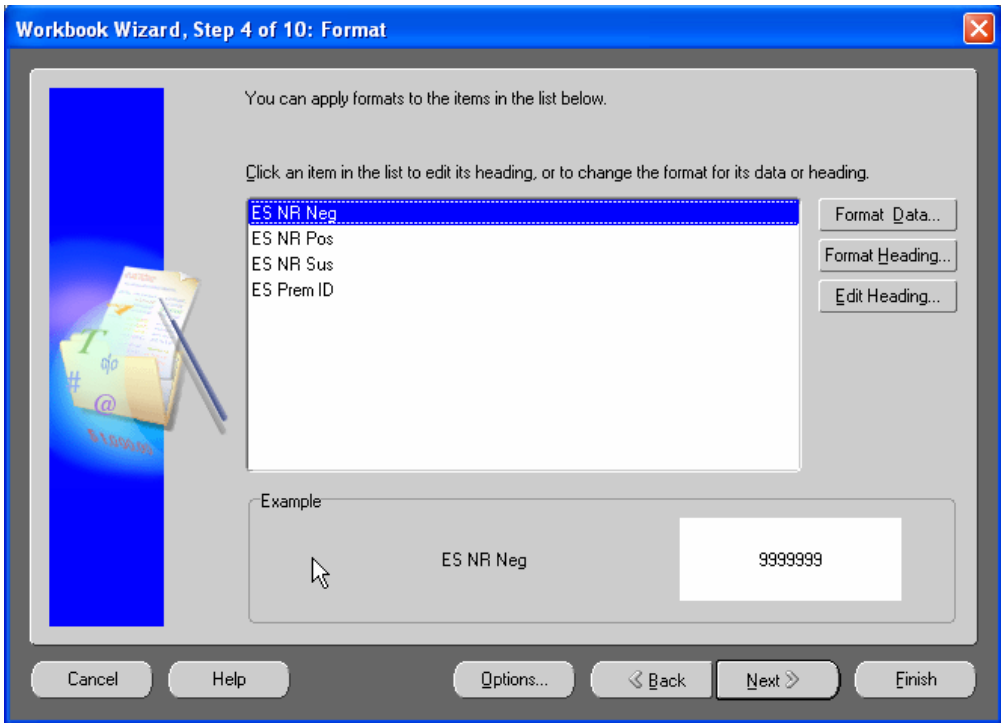
b. To change other features of your report's appearance, click on [Options…]. A new window appears with two tabbed pages in it.

c. Click on the tab for the **Query Governor** page. On this page, find the **Limit retrieved data query to** option. Next to it, specify the maximum number of rows (records) that you want your report to display.

d. Click on the tab at the top of the **Sheet Format** page to see the various options you can customize. Feel free to customize any options on this page, as you wish.

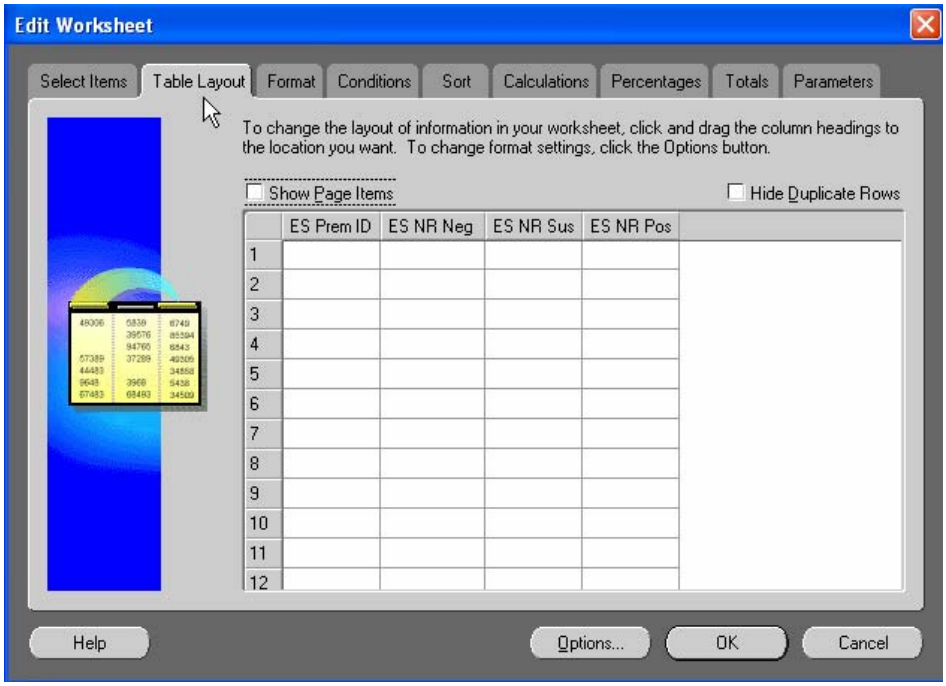
e. After you have customized all the options desired on these two pages, click [OK]. You go back to the **Workbook Wizard, Step 3 of 10** screen.

1.13 Click [Next >]. The **Workbook Wizard, Step 4 of 10** screen now appears.



1.14 In the **Workbook Wizard, Step 4 of 10** screen, you have the ability to change the appearance of both the column headings of your report (i.e., **`ES Prem ID`** and **`ES NR Neg`** in the screen shot below) as well as the data that will appear in the rows of the report.

Remember that your report format is currently set to the "Table" format and looks similar to this:



a. Click on the column heading, **`ES NR Pos`**.

b. To rename this item, click on the [Edit Heading…] button.

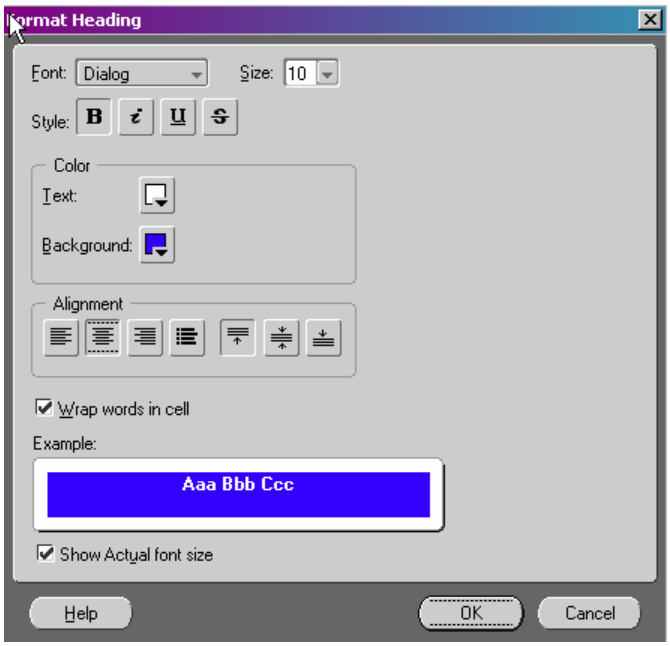
c. In the **Edit Heading** pop-up window (shown at right), change **`ES NR Pos`** to **`NR Animals Pos`**. Then click [OK].

Back in the **Wizard** screen, now click on the item, **`PR Prem Name`**.

d. Click on the [Format Heading…] button.

e. In the **Format Heading** pop-up window, choose several options to change the appearance of the **`ES NR Pos`** column heading. After you have specified all of the options you want, click [OK] to return to the **Wizard** screen.

As this screen shot shows, the text will now appear in bold white letters, the background color of the column heading will be blue, and the text alignment will be centered inside the column cell.

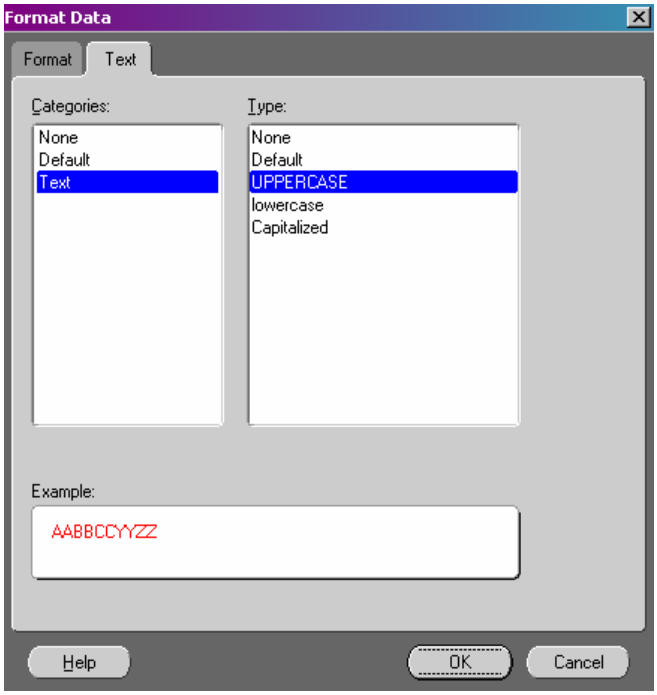


f. You can customize the report's data in the same way that you did the report's column headings. To do so, click on the [Format Data…] button.

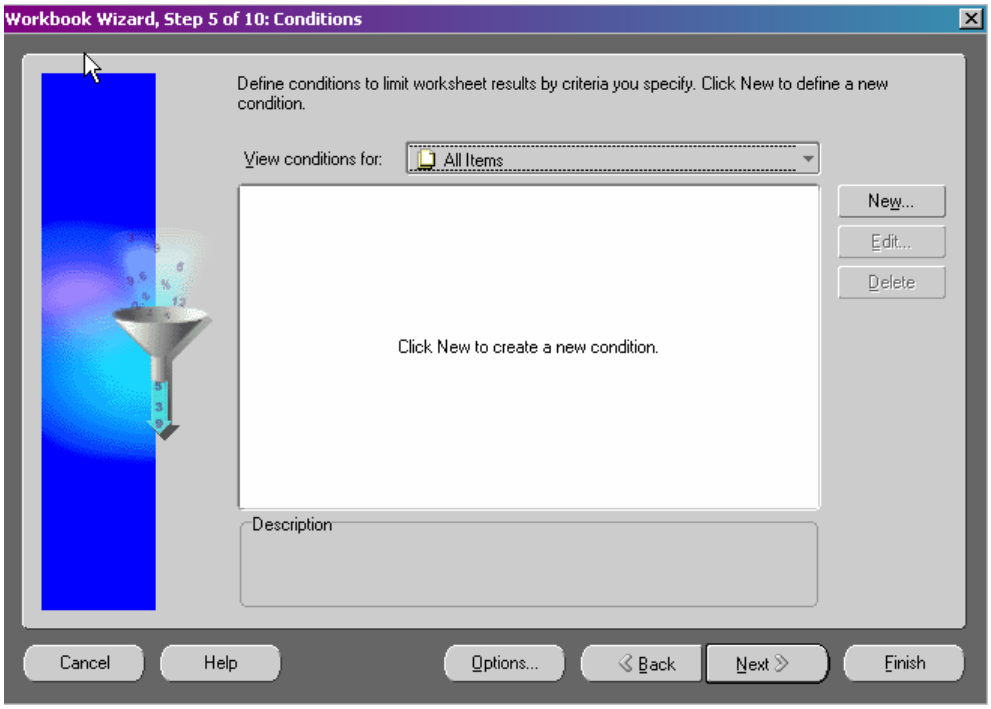
g. In the **Format Data** pop-up window, there are two tabbed pages, **Format** and **Text**. Both contain options you can choose from. Remember, the options you select on these two pages will affect all of the data in every record displayed in your report.

In this screen shot, look at the "Example" field box at the bottom. It indicates that your report's data will now appear in uppercase red letters, in the DialogInput typeface, and in font size 12.

After you have specified all of the options you want on each page, click [OK] to return to the **Wizard** screen.



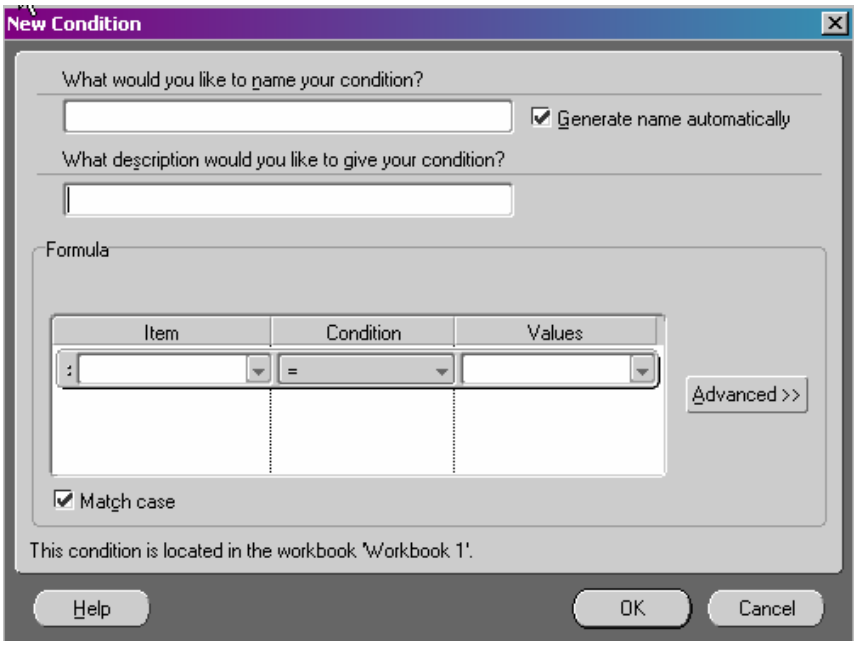
1.15 Back in the **Wizard** screen, click the [Next >] button. The **Workbook Wizard, Step 5 of 10** screen appears next.



1.16 On this screen, you will construct the search query itself.

a. Verify that the **`View conditions for`**: field is showing **`All Items`**.

b. Click on [New…]. The **New Condition** pop-up window appears.



c. The pointer is in the **`What description would you like to give your condition?`** Field. Type in a statement that describes how the search query will filter the data in your worksheet. As an example, type the following: **`Lists BOV-BR test results, sorted by their prem Is`**.

d. Use your mouse to stretch the **New Condition** screen a bit wider so that you can more easily see your query as you construct it line by line.

e. *Important:* Uncheck the **Match case** option in the lower-left corner of the **New Condition** screen. There should be no check mark appearing in this box.

(Most data stored in the GDB is stored in uppercase letters. If any prompts for starting a query are entered in lowercase letters while this **Match Case** option is checked, then no GDB data will be found and displayed in the output report.)

Note: Be sure to do Step 1.15e above. If you do not, any reports you generate with this search query may be incomplete.

f. Click on [Advanced>>] to start building your search query by creating the first condition for it.

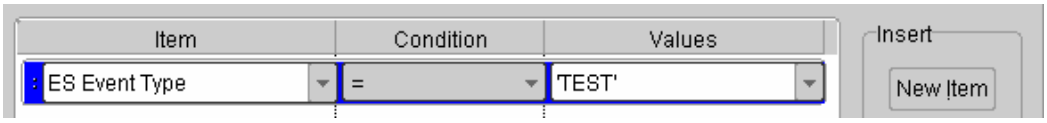
i. In the **Item** column, click the down arrow to make a drop-down list appear. In this list, find and select the **`BR ES Event.ES Event Type`** field.

ii. In the **Condition** column, verify that an equal sign (**=**) is displayed.

iii. In the **Values** column, do one of the following:

- Click the down arrow. In the drop-down list, put a check mark in the box next to the **`TEST`** option.
- Type **`'TEST'`** directly into the **Values** field. (Be sure to include the single quotes before and after **`TEST`** as you type.)

Your query should now look like this:



g. To create the second condition, click on [New Item] again.

i. In the **Item** column for this second condition, click the down arrow and select **`BR ES Event.ES Species`**.

ii. In the **Condition** column, click on the down arrow and select the **`IN`** operator from the drop-down list.

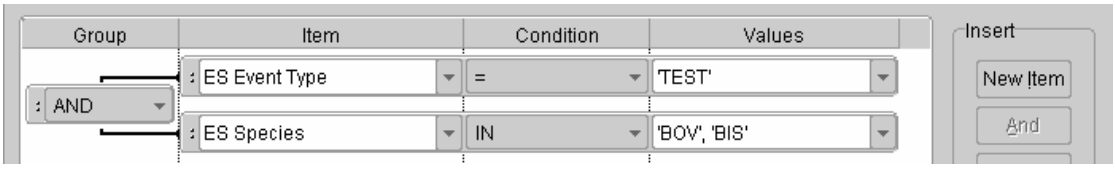
iii. In the **Values** column, do one of the following:

- Click the down arrow. In the drop-down list, put a check mark in the box next to the **BOV** option.
- Type **'BOV',** directly into the **Values** field. (Be sure to include the single quotes before and after **BOV** as you type. Also include the comma after the second single quote.)

iv. Again in the **Values** column, do one of the following:

- Click the down arrow. In the drop-down list, put a check mark in the box next to the **BIS** option.
- Type **'BIS'** directly into the **Values** field. (Be sure to include the single quotes before and after **BIS** as you type.)

Your search query should now look like this:



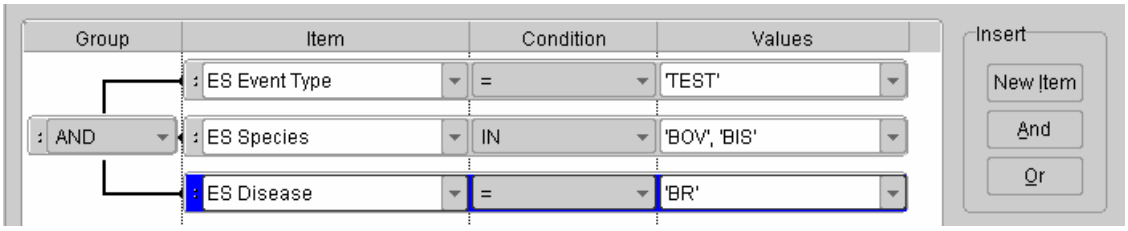
h. To create the third condition, click on [New Item] again.

i. In the **Item** column, select **BR ES Event.ES Disease**.

ii. In the **Condition** column, verify that an equal sign (**=**) is displayed.

iii. In the **Values** column, type **'BR'** (be sure you type the single quote before and after **BR**).

So far, your query should look like this:



i. Create the fourth condition. Click on [New Item].

   i. In the **Item** column for this third condition, click the down arrow and select **`BR ES Event.ES Event Date`**.

   ii. In the **Condition** column, select the **`BETWEEN`** operator.

   iii. In the **Values** column, click on the first down arrow and select the **New Parameter** option. A **New Parameter** window will appear.

      a. In the **What do you want to name this parameter?** text field, type **`Event Begin Date`** .

      b. In the **What prompt do you want to show other users?** text field, type **`Enter the event's starting date:`** . (Be sure to include the colon symbol (:) after the word **`date`**.)

      c. Do not type anything into the **What default do you want to give this parameter?** text field.

      d. Click [OK]. You are returned to the **New Condition** screen.

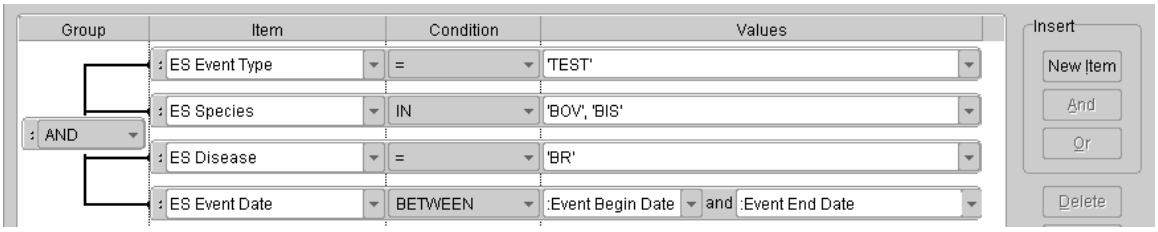
   iv. In the **Values** column again, click on the second down arrow and select the **New Parameter** option. The **New Parameter** window will appear again.

      a. In the **What do you want to name this parameter?** text field, type **`Event End Date`** .

      b. In the **What prompt do you want to show other users?** text field, type **`Enter the event's ending date:`** .

      c. Click [OK]. You are returned to the **New Condition** screen.

   Your query should now look like this:



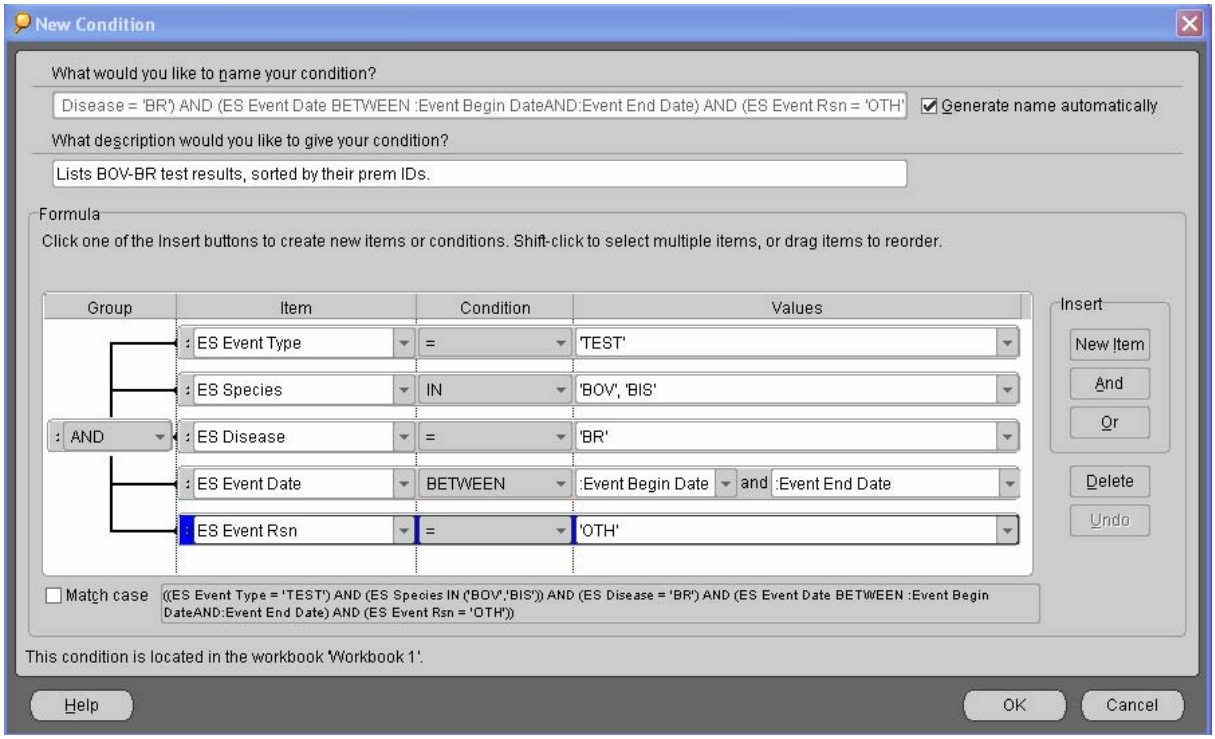
j. Create the fifth and last condition. Click on [New Item].

i. In the **Item** column for this third condition, click the down arrow and select **`BR ES Event.ES Event Rsn`**.

ii. In the **Condition** column, verify that an equal sign (**=**) is displayed.

iii. In the **Values** column, type **`'OTH'`** (be sure you type the single quote before and after **`OTH`**).

You have finished constructing your query. It should look like this:



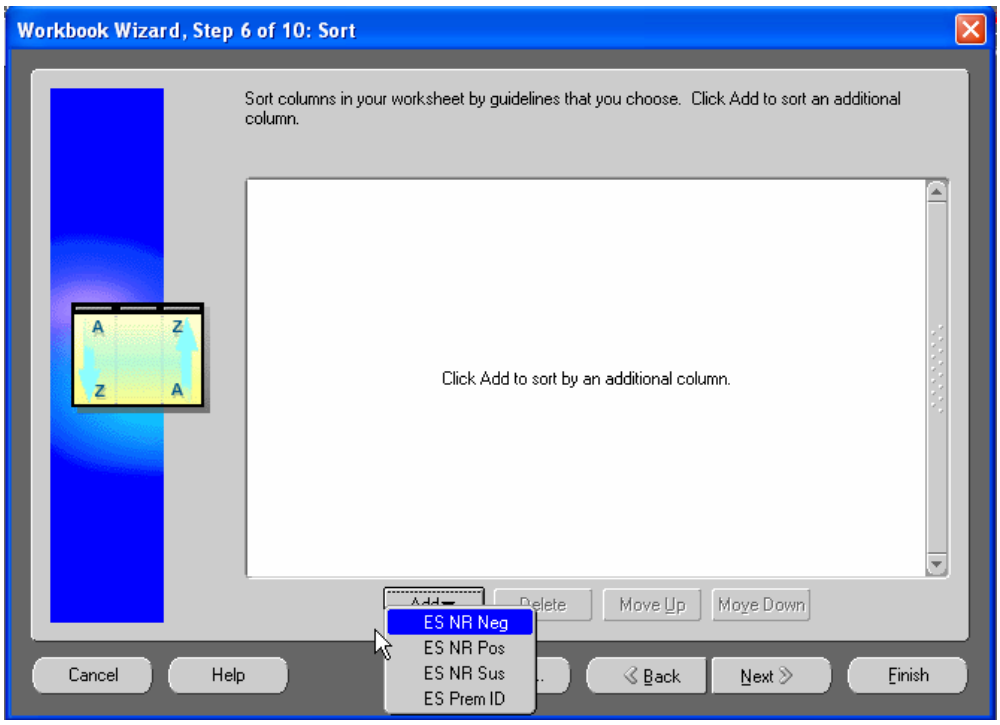
iv. Click the [Next >] button. The next **Workbook Wizard** screen will appear.

1.17 You will see either the:

- The **Workbook Wizard, Step 6 of 10** screen only if you initially chose **Table** as your default report layout (back in the **Workbook Wizard, Step 1 of 10** screen). Continue with the rest of this Step 1.17.
- The **Workbook Wizard, Step 7 of 10** screen if you initially chose any report layout option except **Table** (back in the **Workbook Wizard, Step 1 of 10** screen). Skip the rest of this step and go directly to Step 1.18 now.

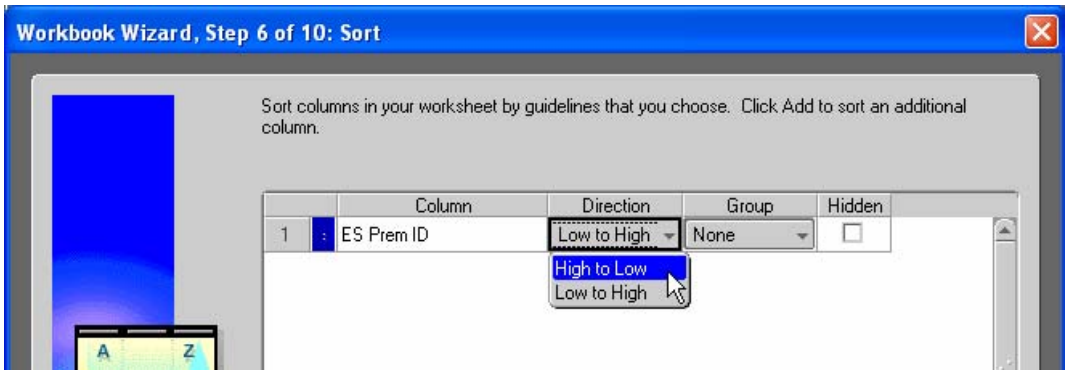
In this screen, you can specify which items you want your report results to be sorted by. If you select multiple items to use as sorting criteria, you can assign a priority level to each item.

a. Click [Add▼]. A pop-up list of the items in your worksheet appears.



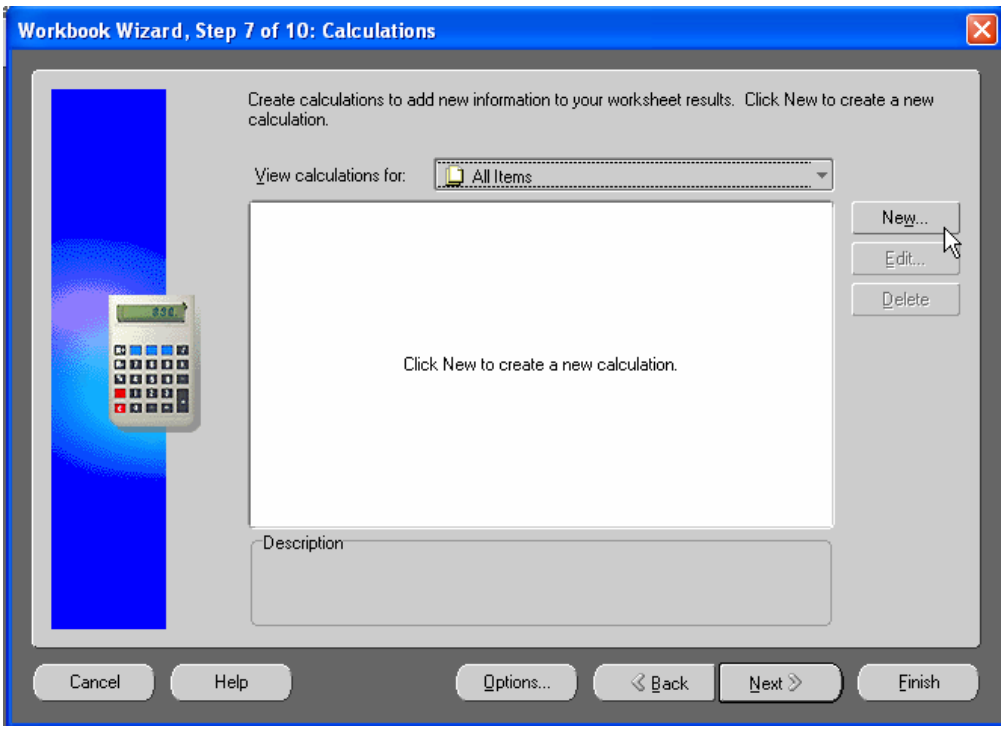
b. Select **`ES Prem ID`** from the list.

c. Customize this item's sorting **Direction** by changing from **`Low to High`** or **`High to Low`**.



d. When you have finalized your sorting criteria, click [Next >]. The next **Workbook Wizard** screen will appear.

1.18 In the **Workbook Wizard, Step 7 of 10** screen (shown below), you can apply a calculations definition to one or more items.



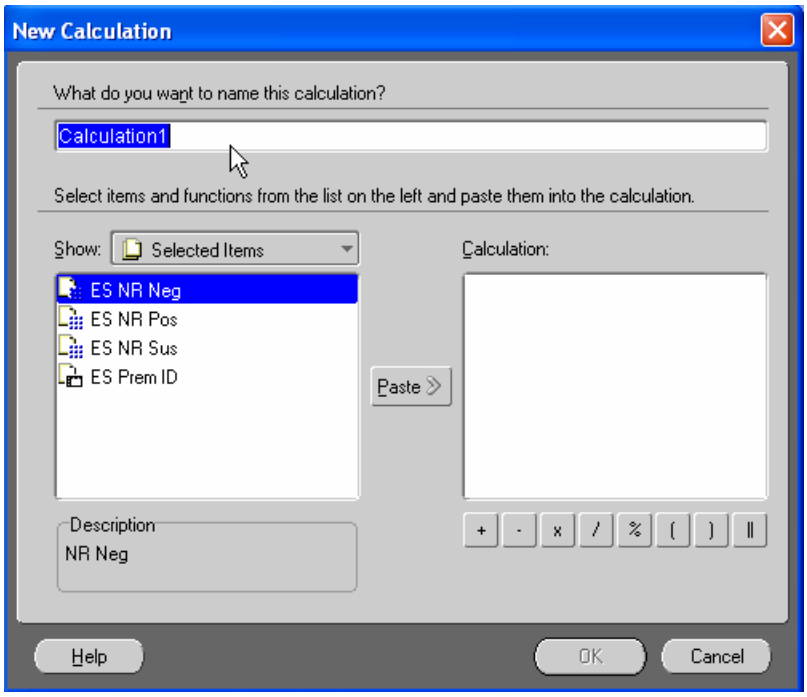
(The search query you are currently constructing does not contain any data points that would use a calculation definition. So the rest of this step is just informative. Read it, or skip directly to Step 1.19, as you wish.)

a. Click [New…]. A **New Calculation** window (shown below) will appear.

b. If you wish, try out the options in this window.

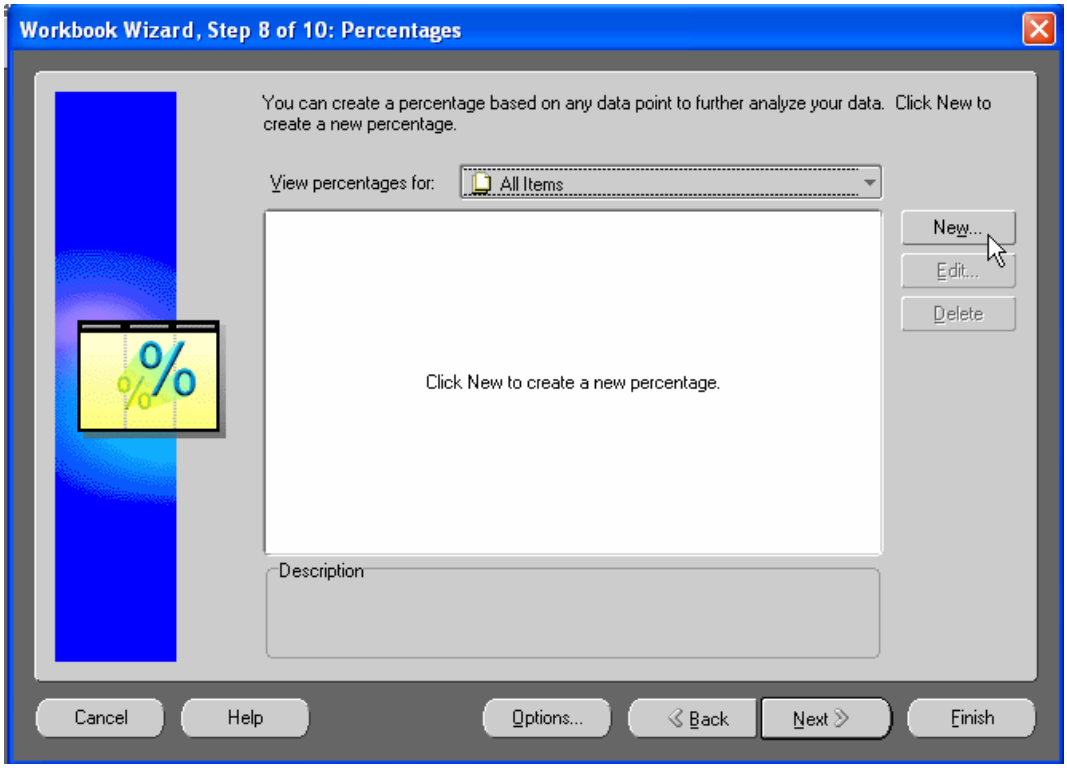
c. When you have finished, click the [Cancel] button to exit without saving your work. You are returned to the **Wizard** screen.

d. Click [Next >]. The next **Workbook Wizard** screen will appear.



1.19 In the **Workbook Wizard, Step 8 of 10** screen, you can apply a percentage definition to one or more items.

(The search query you are currently constructing does not contain any data points that could use a percentage definition. So the rest of this step is just informative.)

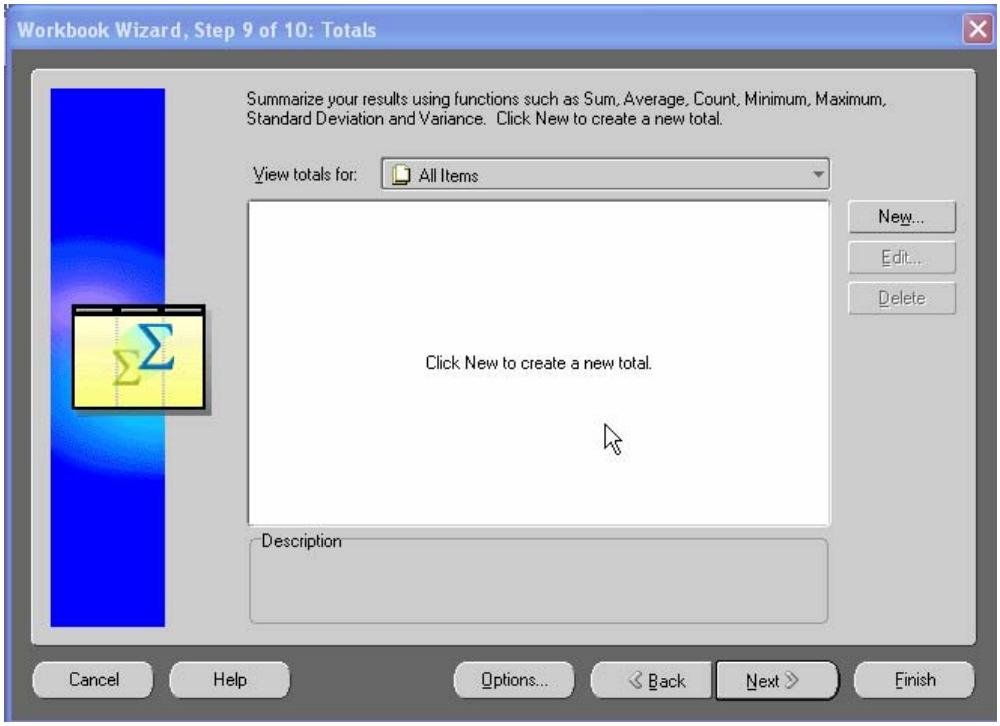


a. Click [New…]. A **New Percentage** window will appear.

b. Try out the options in this window to apply a percentage definition to a data point. Then click [Cancel] to return to the **Wizard** screen.

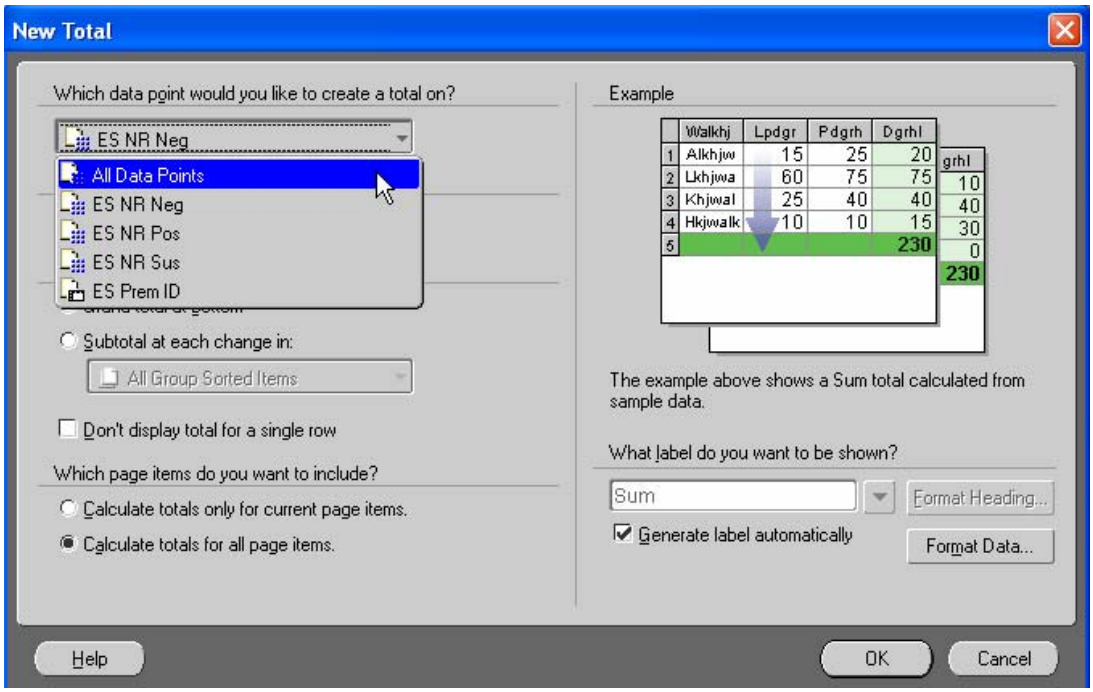
c. Click [Next >]. The **Workbook Wizard, Step 9 of 10** screen will appear.

1.20 In the **Workbook Wizard, Step 9 of 10** screen, you can apply a totals definition to one or more items.



a. Click [New…]. A **New Total** window (shown below) will appear.

b. Under **Which data point would you like to create a total on?**, select **`All Data Points`**.



c. Under **Which page items do you want to include?**, select **`Calculate totals for all page items`**.

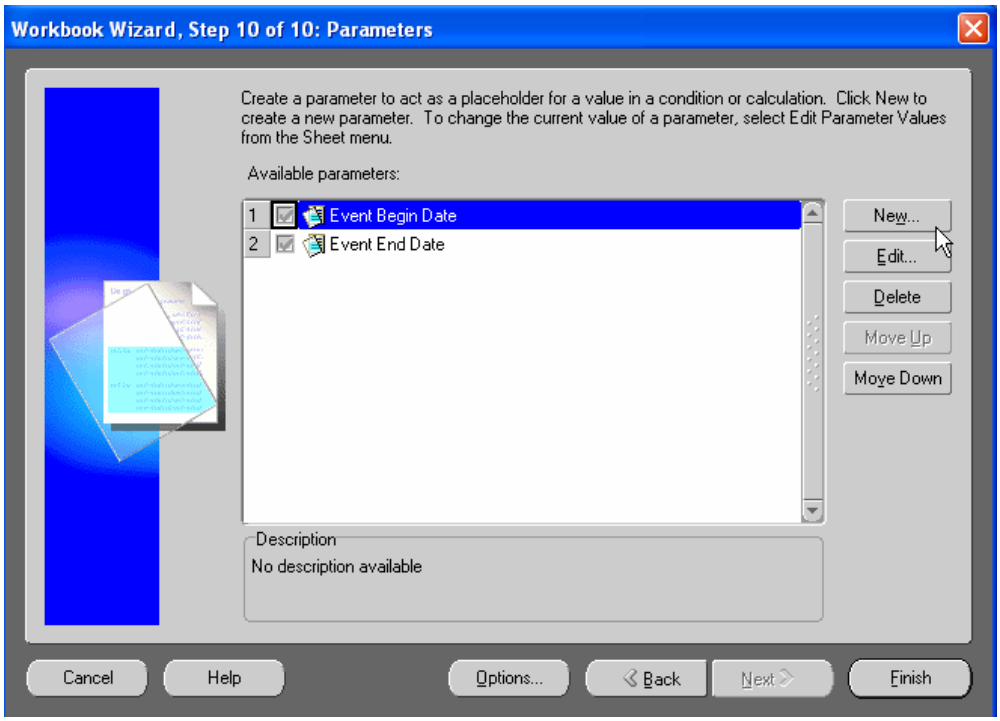
d. There are other options in this window, but they are not needed for the current search query.

e. Click [OK] to return to the **Wizard** screen. Your new totals definition (shown below) now appears on this screen.

f. Click [Next >]. The final **Workbook Wizard** screen will appear.

1.21 In the **Workbook Wizard, Step 10 of 10** screen, you can apply a parameter definition to an item.

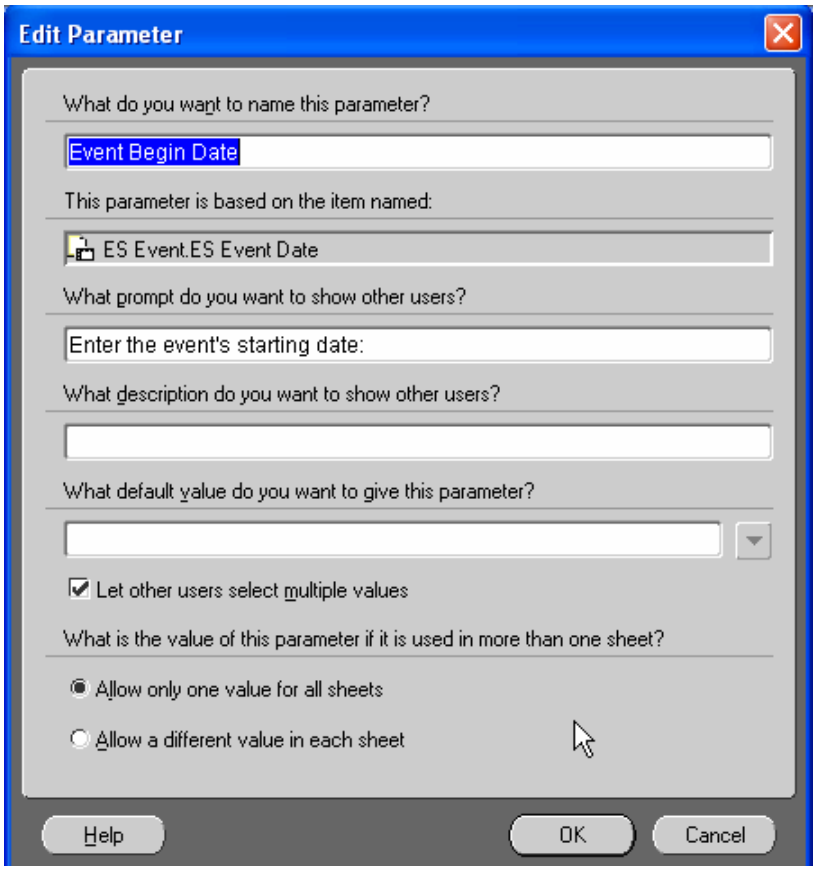
(However, for the search query you are currently constructing, you already did this work back in Step 3.15 when you created your query conditions. So the rest of this step is just informative.)



a. You can do either of two tasks:

- Select an existing parameter shown in the Available Parameters list. Then click [Edit…].
- Click [New…] if you want to add a new parameter to your search query.

An **Edit Parameter** or **New Parameter** window will appear.



b. Fill out the fields in this window as desired.

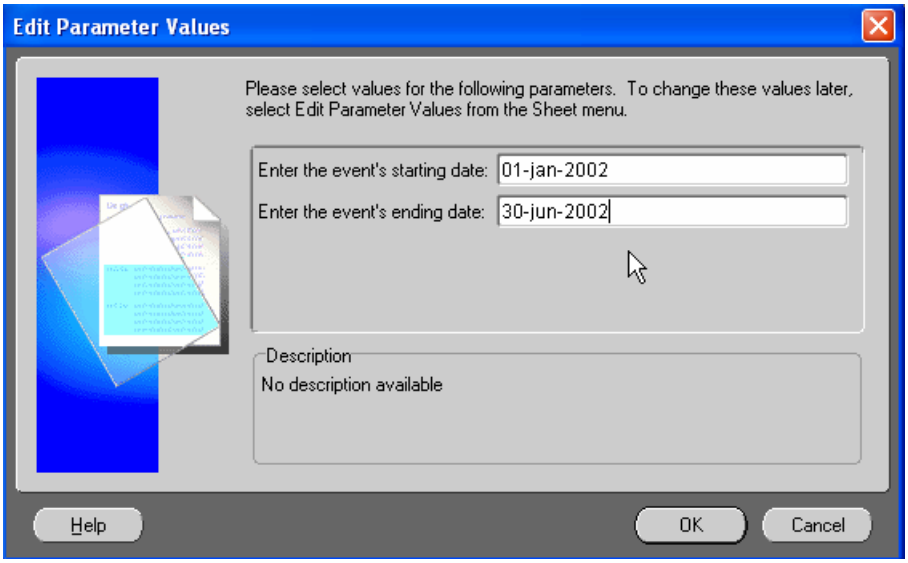
c. Click [OK] to return to the **Wizard** screen. Your new or revised parameter definition now appears on this screen.

d. Click [Finish]. A Discoverer prompt window will appear.

1.22 In the Discoverer prompt window, you see the two prompts that you originally created back in Step 1.16.

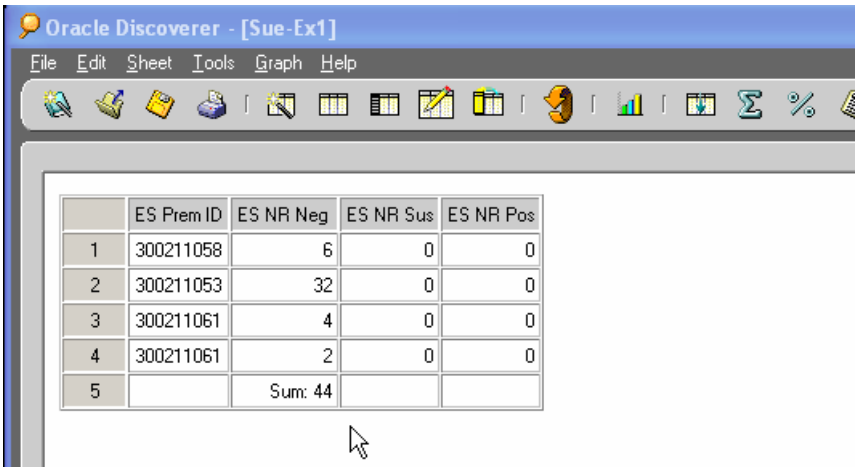
a. Specify the date range that you want your report to cover by answering the two prompts, as shown below.

Note: Whenever you need to enter a date value into a Discoverer parameter form, be sure to use the Oracle format for entering dates. This format is DD-MON-YYYY, where
DD are the two digits for the day
MON are the first three letters of the month's name
YYYY are the four digits for the year
Example: 06-SEP-2003



b. Click [OK]. Your search query will be executed immediately. Any search results found will be displayed in the default report format you chose.

An example **Results Screen** like the one shown below will be stored in your worksheet.

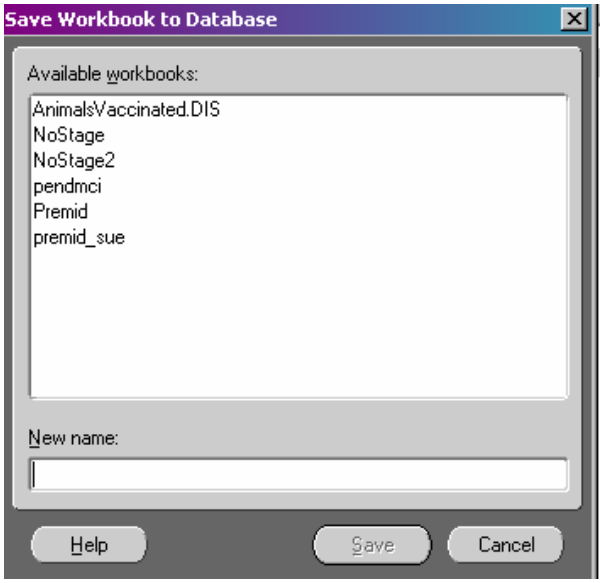


	ES Prem ID	ES NR Neg	ES NR Sus	ES NR Pos
1	300211058	6	0	0
2	300211053	32	0	0
3	300211061	4	0	0
4	300211061	2	0	0
5		Sum: 44		

1.23 After doing all this work, be sure to save your search query/workbook.

Before doing so, check with your database administrator first. He or she may have set up Discoverer so that your office has both state-level and personal-level accounts. In such a case, your administrator may ask you to always create and save new workbooks to your personal Discoverer account only.

a. In the Discoverer menu bar, select the **File→Save** command. The following **Save Workbook to Database** pop-up window will appear.



b. In the **New name** text field, enter the name you want your search query/workbook to be saved under.

Be careful to give your new workbook a unique name. Do not save it under a generic name, such as **`Workbook1`**.

(There are many other individuals who will also be using this Discoverer product on the same GDB database. If several people save their workbooks under the same name, these same workbook files will be overwritten each time.)

It is recommended that your office set up guidelines or naming conventions for its Discoverer files and workbooks. Several naming conventions are suggested below:

Intended Use of Naming Convention	Syntax of Naming Convention	Examples

For an individual's workbooks	Individual's name_description or date of workbook	`Harris_premid_workbook1`
		`Strathburg_year2002`
		`Bruce_tb_farms_2001`

For workbooks shared by everyone in an office	GDB Business Area_rpt_office or state_description of workbook	`BR_rpt_cinncinati_premid` `PRV_rpt_AZ_fed_2003`

Exercise 2:
Creating a New Two-Table Query

In this exercise, you will learn how to use the interactive Discoverer Workbook Wizard tool to create a new search query that uses data from two GDB tables, the **Premises Table** and the **Status Table**.

Shown below is another SQL statement.

```
1      SELECT prem_name, count(status_code), status_code
2      FROM gdb_status s, gdb_premises p
3      WHERE s.disease = '&disease'
4        and p.prem_id = s.prem_id
5      GROUP BY prem_name, status_code
6        having count(status_code) > 2
7*     ORDER BY prem_name
```

In plain English, this SQL statement asks the GDB to count the number of times a premises (prem_name) has more than two statuses associated with it. The GDB will list these status codes and sort them by prem_name. If you were to execute this SQL statement, the GDB would prompt you to specify the disease whose records the GDB will then search to create this status code list.

2.1 If you have not already logged into the Oracle Discoverer website, do so now by doing the following steps:

a. At your computer desktop screen, launch the Netscape Navigator web browser.

b. In the browser's **Location** field, enter the following URL for Discoverer's website:

http://cofcas15:7778/discwb4/html/english/netscape/start_nn.htm

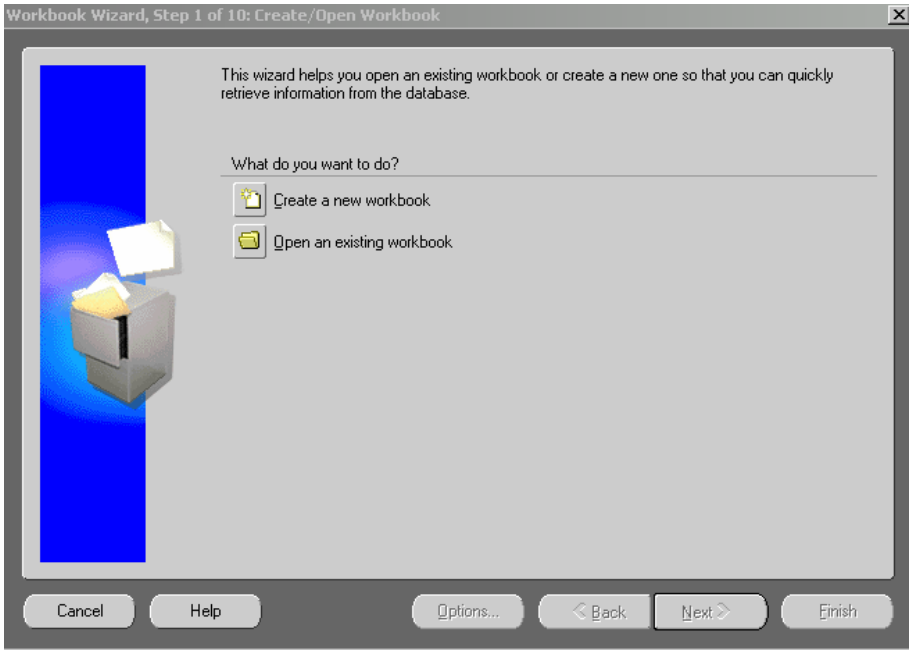
c. If the **Discoverer Welcome Screen** shown appears, click on the **Click to Start** magnifying glass image.

d. If any security certificates appear, accept each one.

e. The **Connect to Oracle Discoverer** screen (shown below) will appear.

f. In this login screen, enter your username, password, and database name. Then click on [Connect].

2.2 The **Workbook Wizard, Step 1 of 10** screen will appear.



2.3 In the **Workbook Wizard , Step 1 of 10** screen, do the following:

a. Select the **`Create a new workbook`** option.

b. Select **`Table`** as the default report layout design for your new worksheet.

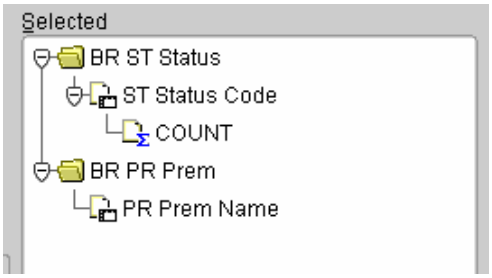
c. Click [Next >]. The **Workbook Wizard, Step 2 of 10** screen appears.

2.4 In the **Workbook Wizard, Step 2 of 10** screen, do the following:

a. In the **Available** column, select the **`DISCO_BR`** option.

b. In the **BR ST Status** and **BR PR Prem Tables**, move the following fields from the **Available** column to the **Selected** column:

`ST Status Code`
`ST Status Code COUNT`
`PR Prem Name`



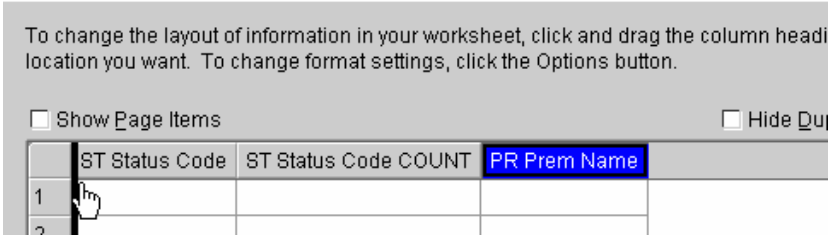
Your query's **Selected** column should now look like the example shown above.

c. Click [Next>].

2.5 In the **Workbook Wizard, Step 3 of 10** screen, rearrange the column headings that will appear in your report:

a. Click on the **`PR Prem Name`** column heading and keep pressing the mouse button down.

b. Drag this column heading from right to left. Note that the column heading itself will not move, but that a heavy black bar will. Keep dragging the heavy black bar as far left as you can.



c. Release the mouse button. The **`PR Prem Name`** column is now the first column in the table.

2.6 In the **Workbook Wizard, Step 4 of 10** screen, click [Next>] to accept the defaults.

2.7 In the **Workbook Wizard, Step 5 of 10** screen, do the following:

a. Click on [New…]. A **New Condition** window appears.

b. Click on [Advanced>>].

c. Stretch/widen this **New Condition** window.

d. *Important:* Uncheck the **Match case** box in the lower-left corner of the window. There should be no check mark inside the box for this option.

e. Create the first condition by doing the following:

i. In the **Item** column, select the **`BR ST Status.ST Disease`** field.

ii. In the **Condition** column, verify that an equal sign (**=**) is displayed.

iii. In the **Values** column, click on the down arrow and select the **New Parameter** option. A **New Parameter** window will appear.

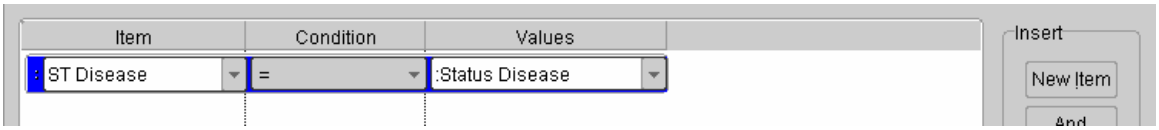
iv. In the **What do you want to name this parameter?** text field, type **`Status Disease`**.

v. In the **What prompt do you want to show other users?** text field, type **`Enter the disease:`**. (Be sure to type a colon (**:**) after the word **`disease`**.)

vi. Do not type anything into the **What default do you want to give this parameter?** text field.

vii. Click [OK]. You are returned to the **New Condition** screen.

viii. Your query should now look like this:



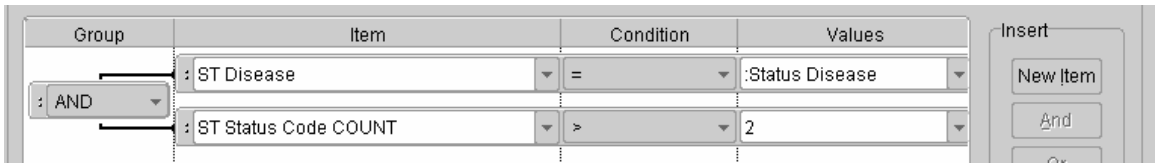
f. To create the second condition, click on **New Item** again.

i. In the **Item** column, select the **`BR ST Status.ST Status Code COUNT`** field.

ii. In the **Condition** column, select the **>** operator.

iii. In the **Values** column, type the numeral **2**.

Your query should now look like this:



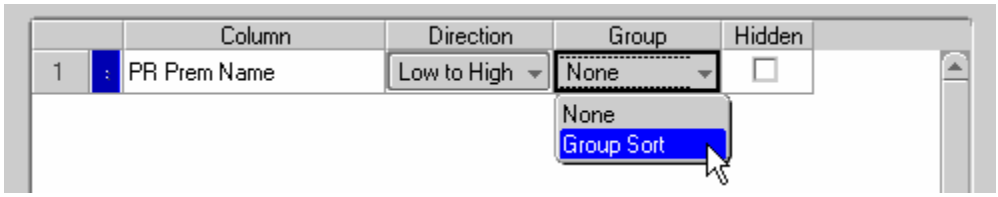
g. Click [OK]. You are returned to the **Workbook Wizard, Step 5 of 10** screen.

h. Click [Next>]. The next **Workbook Wizard** screen will appear.

2.8 In the **Workbook Wizard, Step 6 of 10** screen, do the following:

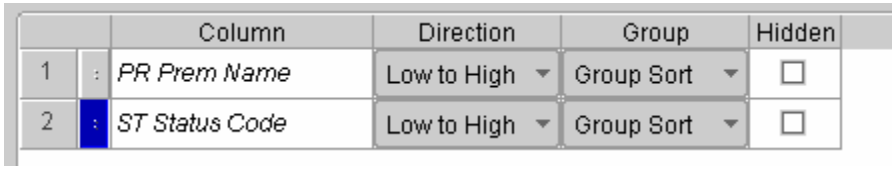
a. Click on [Add▼] and select the **PR Prem Name** option. A **Sort** window appears.

b. In the **Group** column, select the **Group Sort** option.



c. Click on [Add▼] again and select the **St Status Code DZ** option.

d. In the **Group** column, select the **Group Sort** option. Your search query should now indicate these instructions:



e. Click [Next>]. The next **Workbook Wizard** screen will appear.

2.9 In the **Workbook Wizard, Step 7 of 10** screen, click [Next>] to accept the defaults.

2.10 In the **Workbook Wizard, Step 8 of 10** screen, click [Next>] to accept the defaults.

2.11 In the **Workbook Wizard, Step 9 of 10** screen, do the following:

a. Click on **New…** . A **New Total** window will appear.

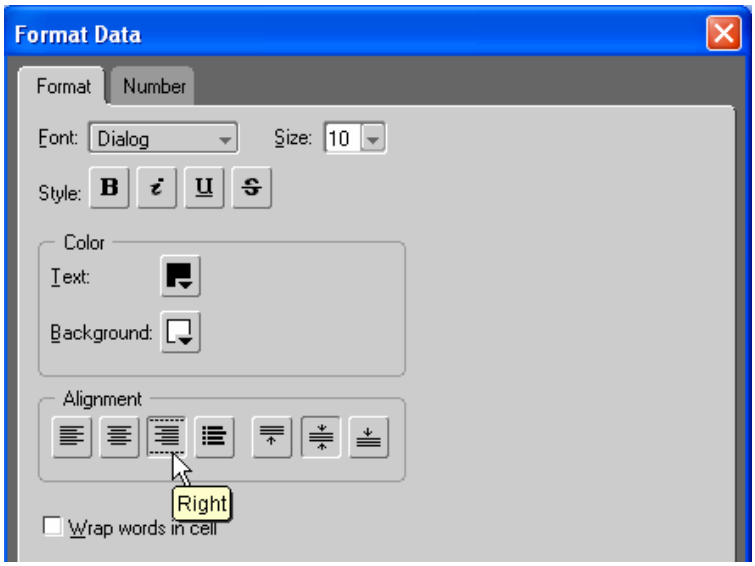
b. Click on **Format Data**.

c. In the **Format Data** window, select the **Format** tabbed page.

d. In the *Alignment* block, select the **Right-Aligned** icon (shown at right).

e. Click [OK] again to return to the **New Total** screen.

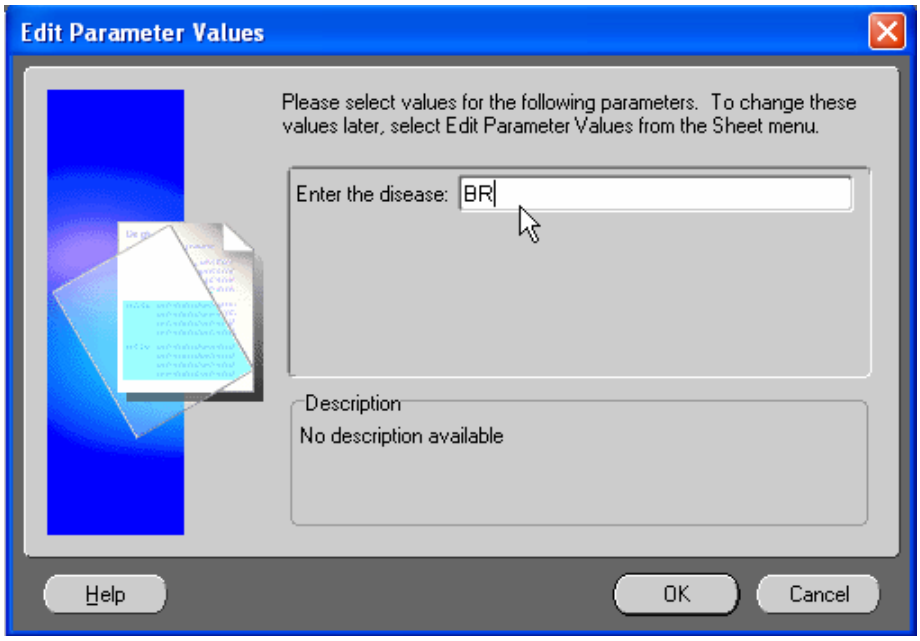
f. Click [OK] again to return to the **Workbook Wizard, Step 9 of 10** screen.



g. Click [Next>]. The final **Workbook Wizard** screen will appear.

2.12 In the **Workbook Wizard, Step 10 of 10** screen, click [Finish] to accept the defaults. A Discoverer prompt window will then appear.

2.13 In the Discoverer prompt window, you now see the prompt that you originally created back in Step 2.7.



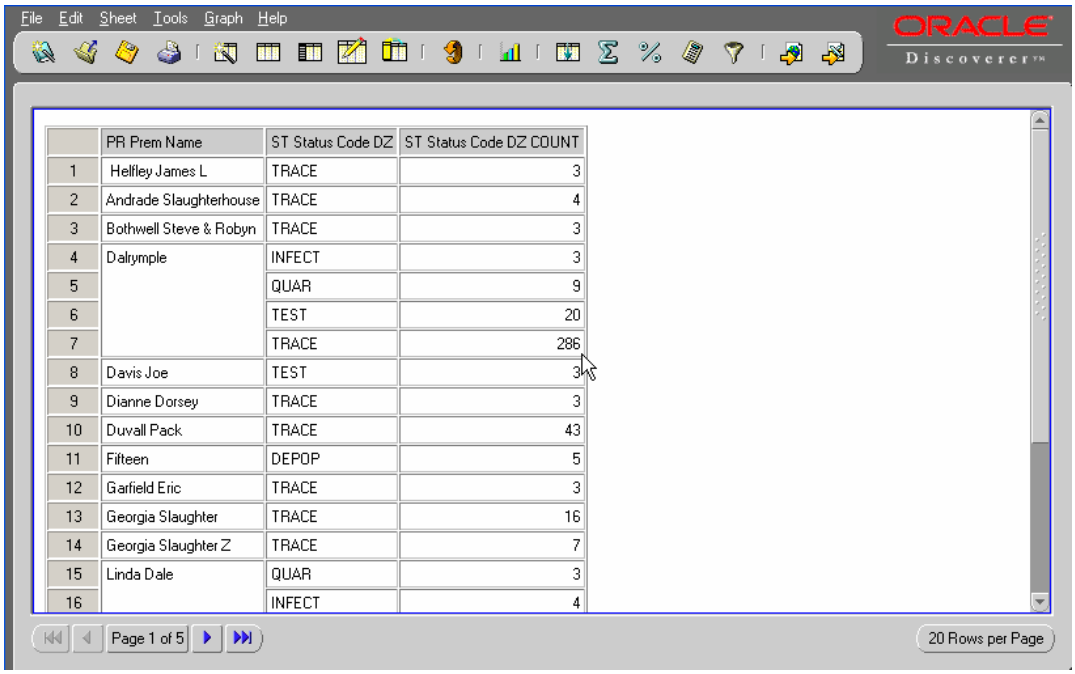
a. Enter the code for the disease you want your report to focus on, as shown above. For this query, type: **`'BR'`**

b. Click [OK].

Your search query will be executed immediately. Any search results found will be displayed in the default report format you chose.

c. If an error message appears that states, **`Not all data will be retrieved`**, just click on [OK].

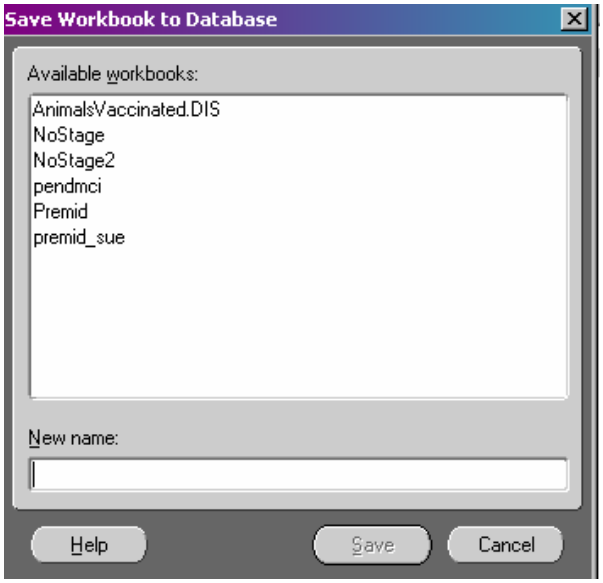
An example **Results Screen** appears below.



	PR Prem Name	ST Status Code DZ	ST Status Code DZ COUNT
1	Helfley James L	TRACE	3
2	Andrade Slaughterhouse	TRACE	4
3	Bothwell Steve & Robyn	TRACE	3
4	Dalrymple	INFECT	3
5		QUAR	9
6		TEST	20
7		TRACE	286
8	Davis Joe	TEST	3
9	Dianne Dorsey	TRACE	3
10	Duvall Pack	TRACE	43
11	Fifteen	DEPOP	5
12	Garfield Eric	TRACE	3
13	Georgia Slaughter	TRACE	16
14	Georgia Slaughter Z	TRACE	7
15	Linda Dale	QUAR	3
16		INFECT	4

2.14 After doing all this work, be sure to save your search query/workbook.

a. In the Discoverer menu bar, select the **File→Save** menu item. The following **Save Workbook to Database** pop-up window will appear.



b. In the **New name** text field, enter the name you want your search query/workbook to be saved under.

Be careful to give your new workbook a unique name. Do not save it under a generic name, such as **`Workbook1`**.

(There are many other individuals who will also be using this Discoverer product on the same GDB database. If several people save their workbooks under the same name, these same workbook files will be overwritten each time.)

It is recommended that your office set up guidelines or naming conventions for its Discoverer files and workbooks. Several naming conventions are suggested below:

Intended Use of Naming Convention	Syntax of Naming Convention	Examples

For an individual's workbooks	Individual's name_description or date of workbook	`Harris_premid_workbook1`
		`Strathburg_year2002`
		`Bruce_tb_farms_2001`

For workbooks shared by everyone in an office	GDB Business Area_rpt_office or state_description of workbook	`BR_rpt_cinncinati_premid` `PRV_rpt_AZ_fed_2003`

Chapter 6:
Using a Pre-Defined Workbook in the GDB Workbook Library

This chapter describes a set of pre-defined workbook queries that are included in Discoverer's initial release for GDB 8i.5. These pre-defined workbooks enable you to perform commonly-needed queries without having to write them yourself.

The topics covered in this chapter appear below:

Using Pre-Defined Workbooks

Using a pre-defined workbook query is a quick, efficient, and easy way to run a Discoverer query for GDB data. You do not have to write a pre-defined query from scratch, or test it, or analyze its initial reports to verify that it is retrieving the data results you expect.

There are, however, a few caveats you should keep in mind when using pre-defined workbooks:

- *Never modify an original, pre-defined workbook.* Instead, open the original workbook and then immediately save it under a new name. You can then modify the second version of the workbook as little or as much as you wish. (See Chapter 8, *Renaming a Workbook*, for more details.)

- Do not save any modified workbooks to your office/state/federal Discoverer account. These accounts are usually accessible by a large number of people. If everyone started adding additional workbooks, these accounts would quickly become very cluttered with redundant workbooks.

  Instead, make it a habit to always save any workbooks you modify or create from scratch into your own personal Discoverer account. Then check with your database administrator about the merits of adding your workbook to the office/state/federal account.

- If you have either modified a pre-defined workbook or created a new one that you feel would benefit the APHIS community as a whole, please contact the VS-AIM staff to discuss this possibility. (Contact information for VS-AIM appears in Chapter 1.)

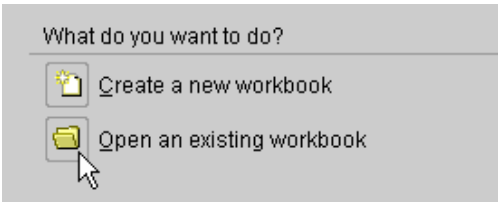
Opening a Pre-Defined Workbook

1. Log into the Oracle Discoverer™ website by doing the following:
   a. At your computer desktop screen, launch the Netscape Navigator web browser.
   b. In the browser's **Location** field, enter the following URL for Discoverer's website:

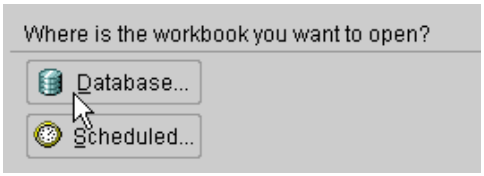
      http://cofcas15:7778/discwb4/html/english/netscape/start_nn.htm

   c. When the **Discoverer Welcome Screen** appears, click on the **Click to Start** magnifying glass image.
   d. If any security certificates appear, accept each one.
   e. When the **Connect to Oracle Discoverer** login screen appears, enter your **Username**, **Password**, and **Database** information. Then click on [Connect].

2. When the **Workbook Wizard, Step 1 of 10** screen appears, click on the option, **Open an existing workbook** (shown at right).



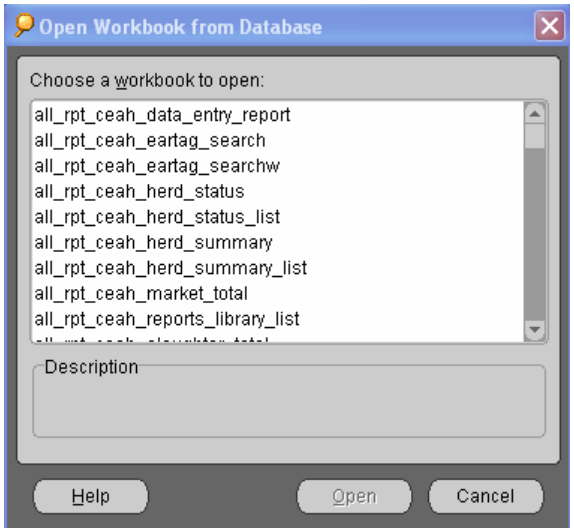
3. A second prompt will appear on this same screen. Click on the option, **Database** (as shown).



4. The **Open Workbook From Database** popup window shown at right will appear.

   Find and highlight the workbook you wish to use. Then click on [Open].

   The parameter form for the workbook you selected will appear. This form is ready for you to enter your search values.



5. You can now do any of several things:

   - If you want to simply run this workbook query, enter your search values in the fields on the form. Then click on [OK].

     Discoverer will execute the query and display any results onscreen.

   - If you want to modify the query itself so that it will use different parameters or retrieve different results, do the following:

     i. Click on [Cancel]. The parameter form will close and you will see a blank worksheet in the workbook.

     ii. In the Discoverer menu bar, select the **File → Save As** menu item.

     iii. A **Save Workbook To Database** popup window will appear. This window lists all of the workbooks currently in the GDB. In the New Name field below the list, type the name that you want to give to your modified workbook. Then click on [Save].

     The workbook will be saved under the name you just created. You can see this new name in the workbook's title bar (above the Discoverer menu bar).

     You can now modify this workbook as little or as much as you like.

Organization of the GDB Workbook Library

The workbooks in this library are divided into the five GDB Business Areas that you have already been introduced to previously in Chapter 2. They are listed below again:

Disco_ALL	The 12 workbooks in this area will generate reports using data from the GDB's BR, PRV, SCR, and TB animal disease control programs.
Disco_BR	The 13 workbooks in this area will generate reports using data from the GDB's Brucellosis animal disease control program only.
Disco_PRV	The 11 workbooks in this area will generate reports using data from the GDB's Pseudorabies animal disease control program only.
Disco_SCR	The 11 workbooks in this area will generate reports using data from the GDB's Scrapie animal disease control program only.
Disco_TB	The 11 workbooks in this area will generate reports using data from the GDB's Tuberculosis animal disease control program only.

Eleven of these workbooks are the same in each of the five Business Areas. They execute the same queries and retrieve data from the same GDB and CDS tables, differing only in which disease(s) for which they are retrieving data. For example, the **rpt_ceah_herd_summary** workbook query appears in each Business Area, with a prefix for the appropriate disease attached to each workbook's name:

In **Disco_ALL**	This workbook is called **all_rpt_ceah_herd_summary**.
In **Disco_BR**	This workbook is called **br_rpt_ceah_herd_summary**.
In **Disco_PRV**	This workbook is called **prv_rpt_ceah_herd_summary**.
In **Disco_SCR**	This workbook is called **scr_rpt_ceah_herd_summary**.
In **Disco_TB**	This workbook is called **tb_rpt_ceah_herd_summary**.

The **Disco_ALL** Business Area has one additional, unique workbook, which is a descriptive list of all of the pre-defined workbooks available in this initial release of Discoverer.

And the **Disco_BR** Business Area has two additional, unique workbooks, dedicated to the BRT (Brucellosis Ring Test) component of the BR disease program.

Note: In future releases of Discoverer, additional workbooks for these current five Business Areas will be added. Other planned additions include all-new Business Areas, such as **Disco_CWD** (Chronic Wasting Disease) and **Disco_JOH** (Johne's Disease). We welcome your suggestions on what workbooks and animal disease programs you would like to see included in future Discoverer releases.

Master List of Pre-Defined Workbooks in the GDB Workbook Library

The following chart provides a complete list of all of the workbooks in the GDB Workbooks Library for the initial Discoverer release with GDB 8i.5.

Business Area	Workbook Names	
ALL	all_rpt_ceah_data_entry_report all_rpt_ceah_eartag_search all_rpt_ceah_herd_status all_rpt_ceah_herd_status_list all_rpt_ceah_herd_summary all_rpt_ceah_herd_summary_list	all_rpt_ceah_market_total all_rpt_ceah_reports_library_list all_rpt_ceah_slaughter_total all_rpt_ceah_status_pending_list all_rpt_ceah_tagsearch all_rpt_ceah_vactag_search
BR	br_rpt_ceah_brt_patron br_rpt_ceah_brt_rounds br_rpt_ceah_data_entry_report br_rpt_eartag_search br_rpt_ceah_herd_status br_rpt_ceah_herd_status_list br_rpt_ceah_herd_summary	br_prt_ceah_herd_summary_list br_rpt_ceah_market_total br_rpt_ceah_slaughter_total br_rpt_ceah_status_pending_list br_rpt_ceah_tagsearch br_rpt_ceah_vactag_search
PRV	prv_rpt_ceah_data_entry_report prv_rpt_eartag_search prv_rpt_ceah_herd_status prv_rpt_ceah_herd_status_list prv_rpt_ceah_herd_summary prv_prt_ceah_herd_summary_list	prv_rpt_ceah_market_total prv_rpt_ceah_slaughter_total prv_rpt_ceah_status_pending_list prv_rpt_ceah_tagsearch prv_rpt_ceah_vactag_search
SCR	scr_rpt_ceah_data_entry_report scr_rpt_eartag_search scr_rpt_ceah_herd_status scr_rpt_ceah_herd_status_list scr_rpt_ceah_herd_summary scr_prt_ceah_herd_summary_list	scr_rpt_ceah_market_total scr_rpt_ceah_slaughter_total scr_rpt_ceah_status_pending_list scr_rpt_ceah_tagsearch scr_rpt_ceah_vactag_search
TB	tb_rpt_ceah_data_entry_report tb_rpt_eartag_search tb_rpt_ceah_herd_status tb_rpt_ceah_herd_status_list tb_rpt_ceah_herd_summary tb_prt_ceah_herd_summary_list	tb_rpt_ceah_market_total tb_rpt_ceah_slaughter_total tb_rpt_ceah_status_pending_list tb_rpt_ceah_tagsearch tb_rpt_ceah_vactag_search

The next section describes many of these workbooks in more detail.

Detailed Descriptions of the Workbooks

In this section you will find detailed descriptions for the three unique workbooks and eleven common workbooks. Because the eleven common workbooks are the same in each Business Area, only the **`Disco_BR`** versions of these workbooks will be discussed in detail here.

These descriptions appear in alphabetical order, according to the names of the workbooks.

Each workbook's description contains the following items (if applicable):

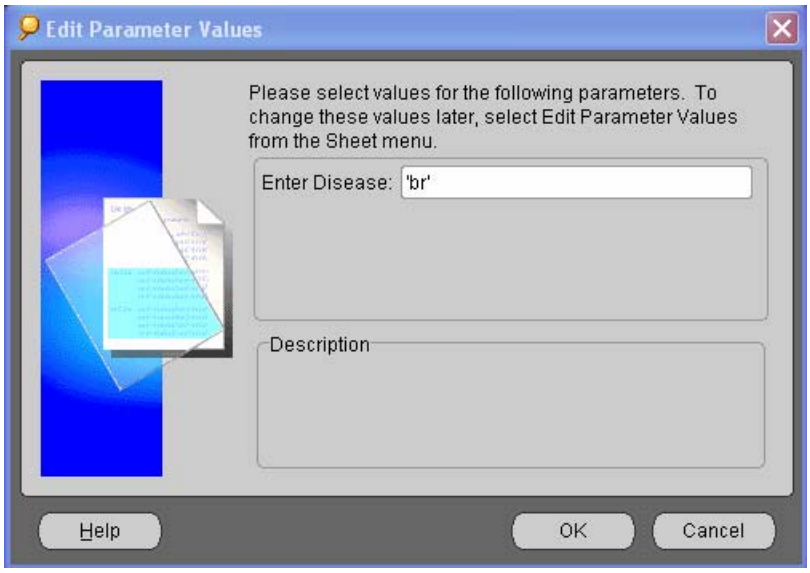
- The workbook's objective (the results this workbook query should retrieve)
- The GDB tables that this workbook query will extract its date from
- Any conditions (table joins, matching values across tables, etc.) that must be met in order to run this workbook query successfully
- A screen shot of the parameter form you need to complete in order to run the query
- A screen shot of the results you might see from a successful query

all_rpt_ceah_reports_library_list

This workbook is unique to the **`Disco_ALL`** Business Area.

Workbook's Objective:	This worksheet returns a list of the workbooks currently available for the Business Area you specify on the parameter form

To generate a report with this worksheet, you will fill out the following parameter form. In the **Enter Disease** field, enter the code for the business area whose list of workbooks you want to see. For example, if you want to see the list of workbooks available for the Tuberculosis Business Area, you would enter the code of **`'TB'`** in this field.



Below is an excerpt of a printed report generated by this worksheet's query:

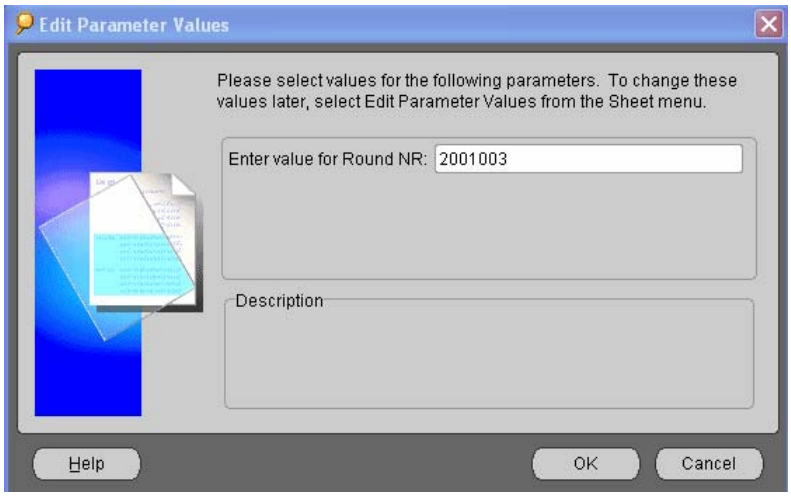
	Report Name	Run Frequency	Disease	Creator	Report Desc
1	BR_RPT_CEAH_BRT_PATRON		BR	SKH	This report returns patron information based o enters. Data is retrieved from the sample and OR id2_source is null. The following data mu: es_nr = event_summary.ea_nr AND sample.e entry_state.
2	BR_RPT_CEAH_BRT_ROUNDS		BR	SKH	This report returns round information based o retrieved from the sample and event_summar reason of BRT and species of BOV. Data is re outer join returns records from one table that c

br_rpt_ceah_brt_patron

This workbook is unique to the **Disco_BR** Business Area.

Workbook's Objective:	This worksheet returns patron information based on a particular round.	
Workbook Retrieves Data From:	• Event_Summary Table • Sample Table	- whose id2 = null or id2_source = null - whose id2 = null or id2_source = null
To Successfully Run This Worksheet Query:	• Event_Summary Table's es_nr = Sample Table's es_nr • Event_Summary Table's entry_state = Sample Table's entry_state	

To generate a report with this worksheet, you will fill out the following parameter form. In the field, enter your value using the following format: **YYYYRRR** (where **YYYY** is the four-digit number of the year and **RRR** is the three-digit number for the round number itself).



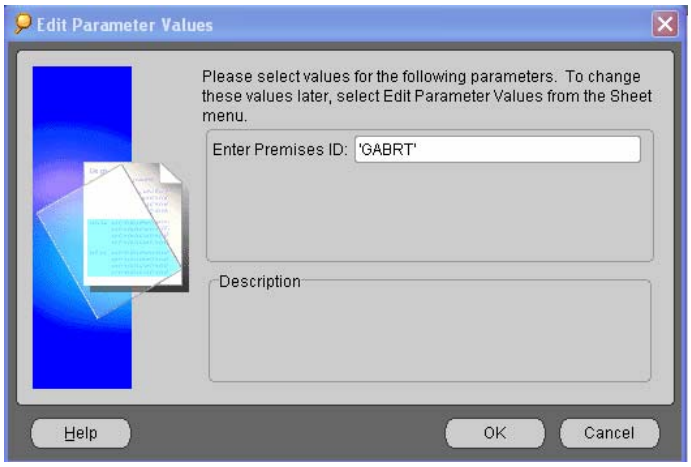
br_rpt_ceah_brt_rounds

This workbook is unique to the **Disco_BR** Business Area.

Workbook's Objective:	This worksheet returns round information based on a state parameter.	
Workbook Retrieves Data From:	• Event_Summary Table • Sample Table	event_type = BRT and event_rsn = BRT and species = BOV
Workbook Retrieves Data Based on These Outer Joins:	• Outer Join 1… the Event_Summary es_nr value joins the Sample es_nr value • Outer Join 2… the Event_Summary entry_state value joins the Sample entry_state value **	

** An outer join returns records from one table that does not have a direct match in the other table.

To generate a report with this worksheet, you will fill out the following parameter form.



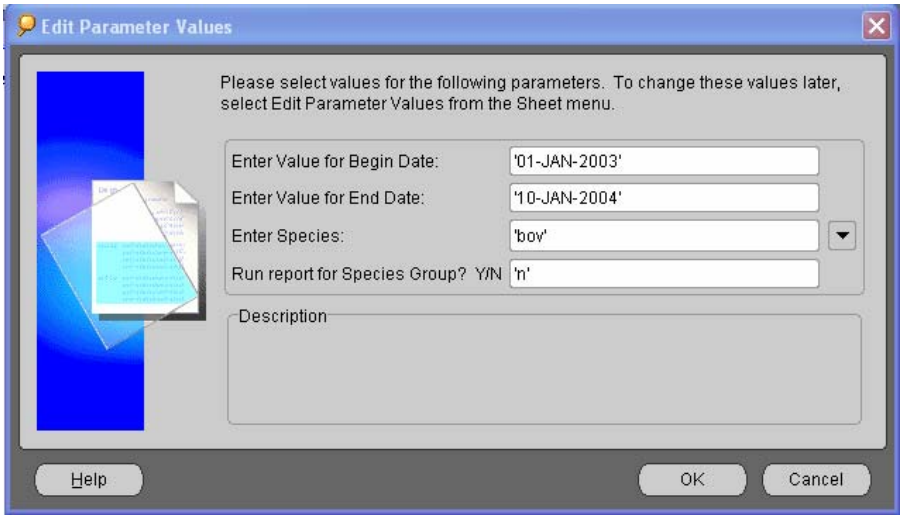
Another screen may appear. If it does, be sure to specify the **ES&SAI OUTER** join; if you do not, the report generated will be incorrect.

br_rpt_ceah_data_entry_report

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet lists event_summary information based on the event_entry_date for Brucellosis.	
Workbook Retrieves Data From:	• Premises Table • Event_Summary Table	- prem_name, prem_city - prem_id, event_date, event2_date, event_entry_date, person_id, nr_neg, nr_pos, nr_oth, event_rsn
To Successfully Run This Worksheet Query:	Premises Table's prem_ID = Event_Summary Table's prem_ID	

To generate a report with this worksheet, you will fill out the following parameter form:



Below is an excerpt of a printed report generated by this worksheet's query:

	Prem Name	Prem City	Prem ID	Event Date Lb	Event Date	Event2 Date Lb	Event2 Date	Event Entry Date Lb	Event Entry Date	Person
1	Garfield Eric	Severance	TX01	Coll Date:	21-MAY-2003	Lab Date:	21-MAY-2003	Evnt Ent Date:	22-MAY-2003	Person
2	Trophy Mountain	Cowdrey	COOO5	Date Collected:	06-JAN-2003	Date Submitted:		Evnt Ent Date:	07-JAN-2003	Submit
3	Trophy Mountain	Cowdrey	COOO5	1st Inv Date:	07-JAN-2003	Last Inv Date:		Evnt Ent Date:	07-JAN-2003	Person

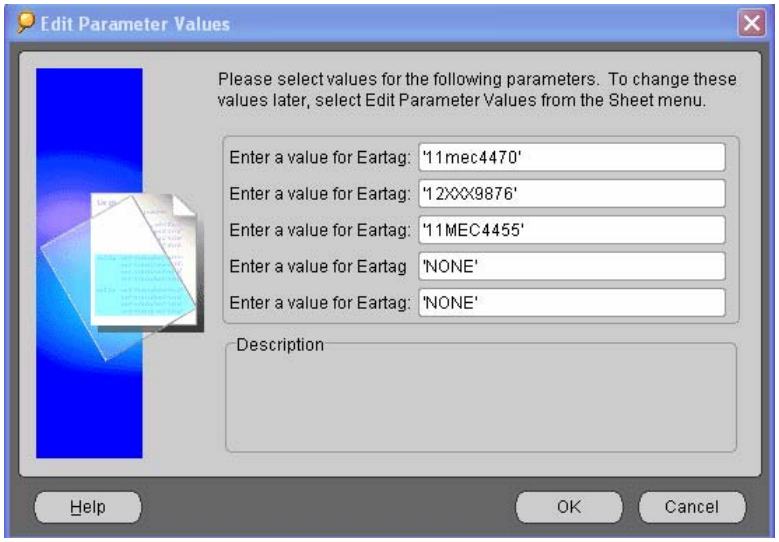
br_rpt_ceah_eartag_search

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet queries ALL eartag information for Brucellosis.	
Workbook Retrieves Data From:	• Premises Table • Event_Summary Table • Sample Table • Test_Result Table	- all eartag-related information - all eartag-related information - all eartag-related information - all eartag-related information
Workbook Retrieves Data Based on These Outer Joins:	• Outer Join 1… the Sample es_nr value joins the Test_Result es_nr value • Outer Join 2… the Sample seq_nr value joins to the Test_Result seq_nr value • Outer Join 3… the Sample disease value joins to the Test_Result disease value **	
To Successfully Run This Worksheet Query:	• Premises Table's prem_ID = Sample Table's prem_ID • Event_Summary Table's es_nr = Sample Table's es_nr	

** An outer join returns records from one table that does not have a direct match in the other table.

To generate a report with this worksheet, you will fill out the following parameter form. You may enter up to five eartag numbers. Each field on the form must be filled in; if you do not need to use a field, you must enter the word **`None`** instead.



Below is an excerpt of a printed report generated by this worksheet's query:

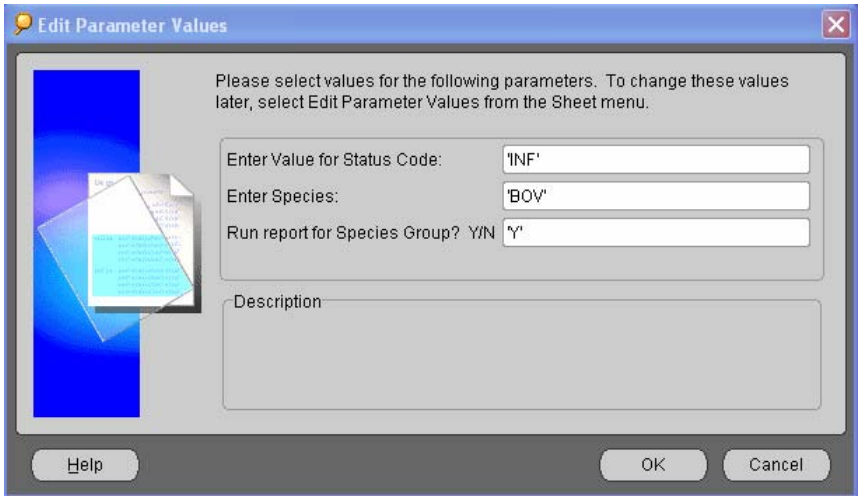
	SubstringPremID	SubstringID1	Es Nr Lb	ES NR	SubstringPremName	SubstringTestInterp	ES Event Date Lb	ES Event Date	SubstringEve
1	CO992244	75RR313		20030502102	PR Prem Name	N		22-APR-2002	UPDHD
2	CO992244	75RR313		20030502102	PR Prem Name	N		22-APR-2002	UPDHD
3	CO992244	75RR313		20030502102	PR Prem Name	N		22-APR-2002	UPDHD
4	CO992244	75RR313		20030502102	PR Prem Name	N		22-APR-2002	UPDHD
5	CO992244	75RR313		20030502102	PR Prem Name	N		22-APR-2002	UPDHD
6	MD0902	75RR313	BR Es Nr:	20031982810	PR Prem Name	N	Coll Date:	10-JUL-2003	TEST

br_rpt_ceah_herd_status

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet ????? for Brucellosis.	
Workbook Retrieves Data From:	• Premises Table • Status Table	- prem_id, prem_name, prem_address, county - iss_date
To Successfully Run This Worksheet Query:	• Premises Table's prem_ID = Status Table's prem_ID • Premises Table's prem_state = Status Table's prem_state • Rel_date = null	

To generate a report with this worksheet, you will fill out the following parameter form.



Below is an excerpt of a printed report generated by this worksheet's query:

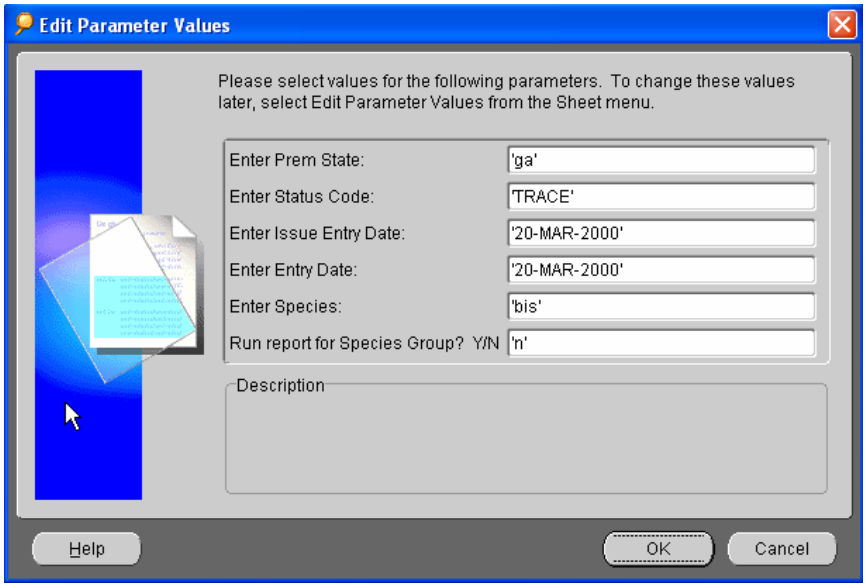
	Prem County	Prem ID	Prem Name	Prem Address	Issue Date Lb	Issue Date	Disease	Species
1	Prem County	Prem ID	Prem Name	Prem Address	Iss Date:	10-DEC-1986	BR	BOV
2	Prem County	Prem ID	Prem Name	Prem Address	Iss Date:	25-SEP-1987	BR	BOV
3	Prem County	Prem ID	Prem Name	Prem Address	Iss Date:	07-NOV-1987	BR	BOV

br_rpt_ceah_herd_status_list

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet ???????? for Brucellosis.	
Workbook Retrieves Data From:	• Premises Table • Status Table	- prem_id, prem_name, prem_address, county - iss_date
To Successfully Run This Worksheet Query:	• Premises Table's prem_ID = Status Table's prem_ID • Premises Table's prem_state = Status Table's prem_state • Rel_date = null	

To generate a report with this worksheet, you will fill out the following parameter form.



Below is an excerpt of a printed report generated by this worksheet's query:

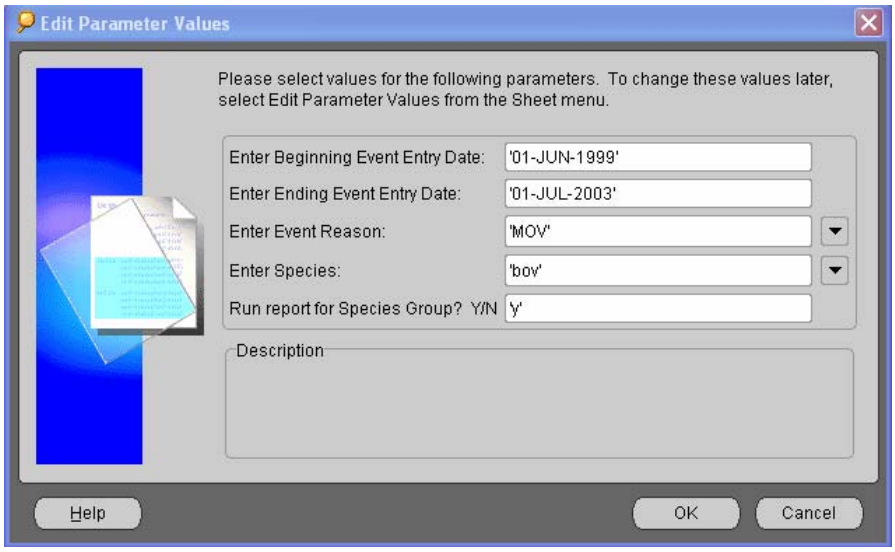
	Prem ID	Prem Name	Prem County	Issue Date Lb	Issue Date	Release Date	Disease	Species
1	00	Livestock	009	Iss Date:	29-MAY-1998	NULL	BR	BOV
2	00	Livestock	009	Iss Date:	01-APR-1999	03-APR-2000	BR	BOV
3	00	Livestock	009	Iss Date:	16-MAR-2000	03-APR-2000	BR	BOV
4	01	Livestock	015	Iss Date:	09-MAR-1998	NULL	BR	BOV

br_rpt_ceah_herd_summary

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet will calculate two totals: one for the number of animals tested for a specific prem_ID and one for the total of animals tested for the report.	
Workbook Retrieves Data From:	Any table whose:	event_type = TBCF, TBCC, TBCV, TBOT
To Successfully Run This Worksheet Query:	• Premises Table's prem_ID = Event_Summary Table's prem_ID • Premises Table's prem_state = Event_Summary Table's prem_state	

To generate a report with this worksheet, you will fill out the following parameter form.



Below is an excerpt of a printed report generated by this worksheet's query:

	Prem ID	Event Date Lb	Event Date	NR Neg	NR Sus	NR Pos	NR Oth	Prem Name	Prem City	NR TESTED	ES NR
1	Prem ID	Coll Date:	22-JUN-1999	1	0	0	0	Prem Name	Prem City	1	BR Es I
2	Prem ID	Event Date:	22-JUN-1999	1	0	0	0	Prem Name	Prem City	1	Es Nr:
3	Prem ID	Coll Date:	03-SEP-1999	1	0	0	0	Prem Name	Prem City	1	BR Es I
4	Prem ID	Event Date:	03-SEP-1999	1	0	0	0	Prem Name	Prem City	1	Es Nr:

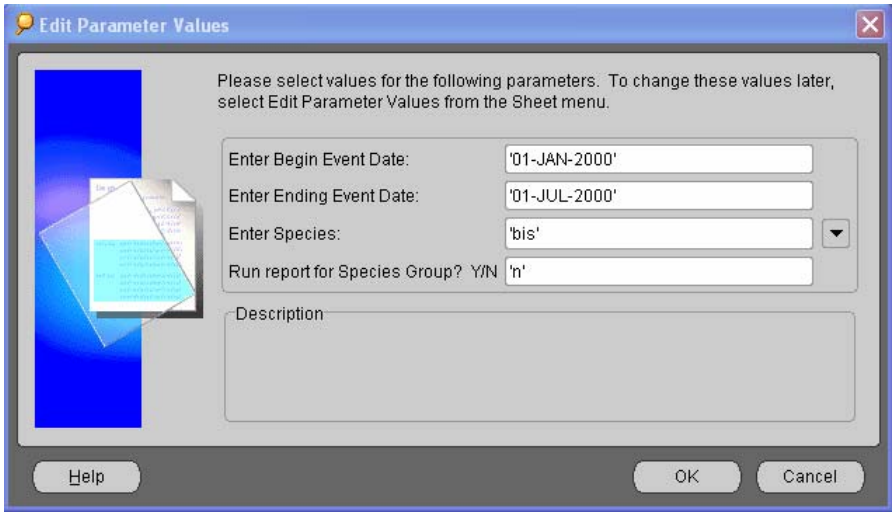
br_rpt_ceah_herd_summary_list

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet queries for Brucellosis disease information.	
Workbook Retrieves Data From:	Any table whose:	- event_type = TEST and - prem_type ≠ FSL, SSL, CSL, RSP, FPC, MKT
Workbook Retrieves Data Based on This Outer Join:	Outer Join 1: the GDB Event_Summary Table's person_id value joins to the CDS Person Table's person_id value. **	
To Successfully Run This Worksheet Query:	• Premises Table's prem_ID = Event_Summary Table's prem_ID • Premises Table's prem_state = Event_Summary Table's prem_state • Premises Table's county = County Table's county	

** An outer join returns records from one table that does not have a direct match in the other table.

To generate a report with this worksheet, you will fill out the following parameter form.



Below is an excerpt of a printed report generated by this worksheet's query:

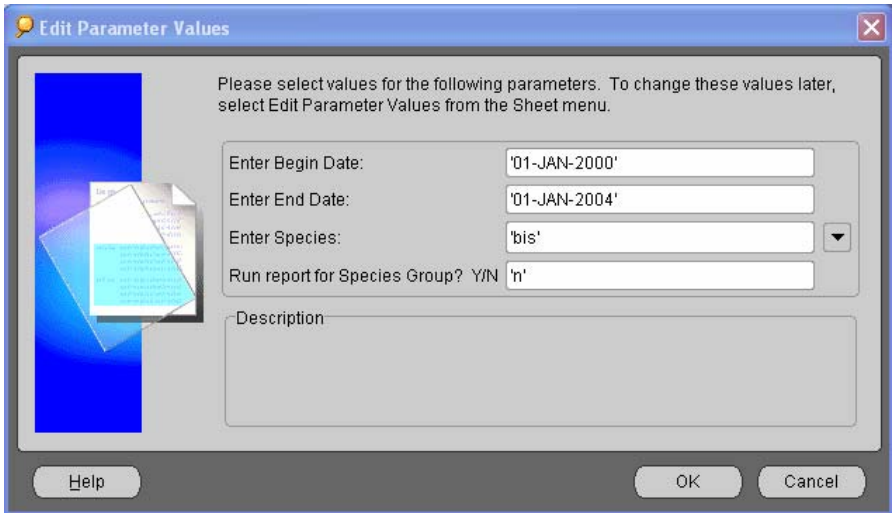
	Prem ID	Event Date Lb	Event Date	Event Rsn Lb	Event Rsn	NR Pos	NR Neg	Prem Name	Prem City	Pre
1	Prem ID	Coll Date:	05-JAN-2000	Test Rsn:	DX	0	2	Prem Name	Prem City	Pre
2	Prem ID	Coll Date:	14-FEB-2000	Test Rsn:	PS	0	5	Prem Name	Prem City	Pre

br_rpt_ceah_market_total

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet queries for Brucellosis disease information. It returns the total count of prem_IDs, the sum of the nr_neg, nr_sus, and nr_pos values, and the sum of the number of positive animals.	
Workbook Retrieves Data From:	• Premises Table • Status Table • Any table whose:	- prem_ID, prem_name, prem_county - iss_date, rel_date - event_type = TEST and event_rsn = MK, MCI, FP and prem_type = FPC, MKT
To Successfully Run This Worksheet Query:	• Premises Table's prem_ID = Status Table's prem_ID • Premises Table's prem_state = Status Table's prem_state	

To generate a report with this worksheet, you will fill out the following parameter form.



Below is an excerpt of a printed report generated by this worksheet's query:

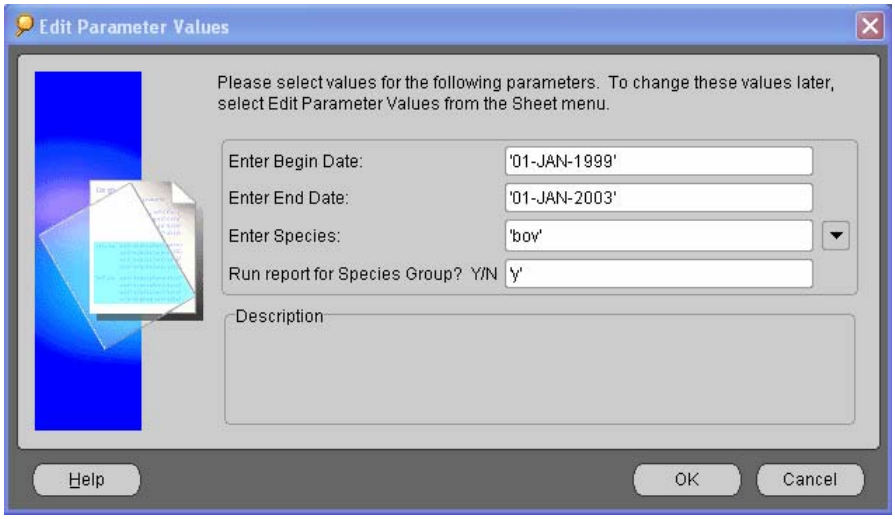
	Distinct PremIDs	NR Tested	NR Pos	Disease	Species
1	21	976578	10	BR	BOV

br_rpt_ceah_slaughter_total

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet queries for Brucellosis disease information. It returns the total count of prem_IDs, the sum of the nr_neg, nr_sus, and nr_pos values, and the sum of the number of positive animals.	
Workbook Retrieves Data From:	• Premises Table • Status Table • Any table whose:	- prem_ID, prem_name, prem_county - iss_date, rel_date - event_type = TEST and event_rsn = SL, MCI and prem_type = FSL, SSL, CSL, RSP
To Successfully Run This Worksheet Query:	• Premises Table's prem_ID = Status Table's prem_ID • Premises Table's prem_state = Status Table's prem_state	

To generate a report with this worksheet, you will fill out the following parameter form.



Below is an excerpt of a printed report generated by this worksheet's query:

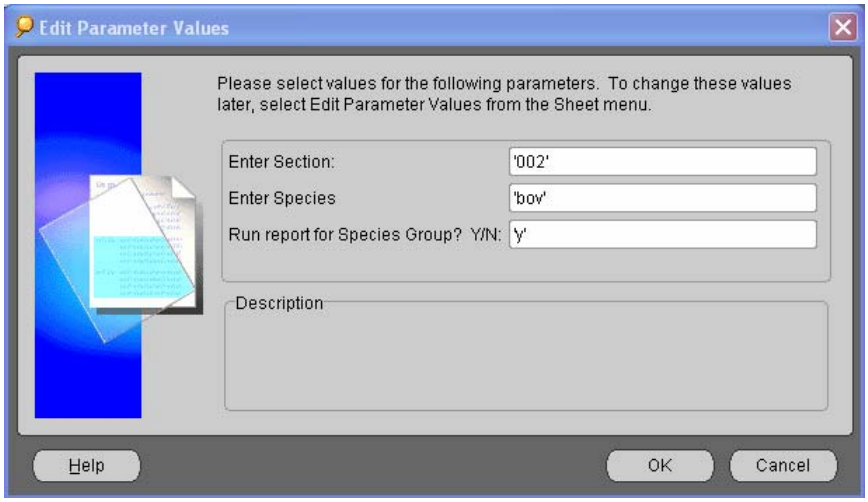
	Distinct PremID	NR Tested	NR Pos	Disease	Species
1	20	5954	4	BR	BOV

br_rpt_ceah_status_pending_list

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet queries for Brucellosis disease information This worksheet does not retrieve any records whose: status = CERT, ACCRED, FPM, QUAL, VALID, or OTH iss_rsn = PMT or HC
Workbook Retrieves Data From:	• Premises Table • Status Table • CDS County Table
To Successfully Run This Worksheet Query:	• Premises Table's prem_ID = Status Table's prem_ID • Premises Table's prem_county = CDS County Table's county • Rel_date = null

To generate a report with this worksheet, you will fill out the following parameter form.



Below is an excerpt of a printed report generated by this worksheet's query:

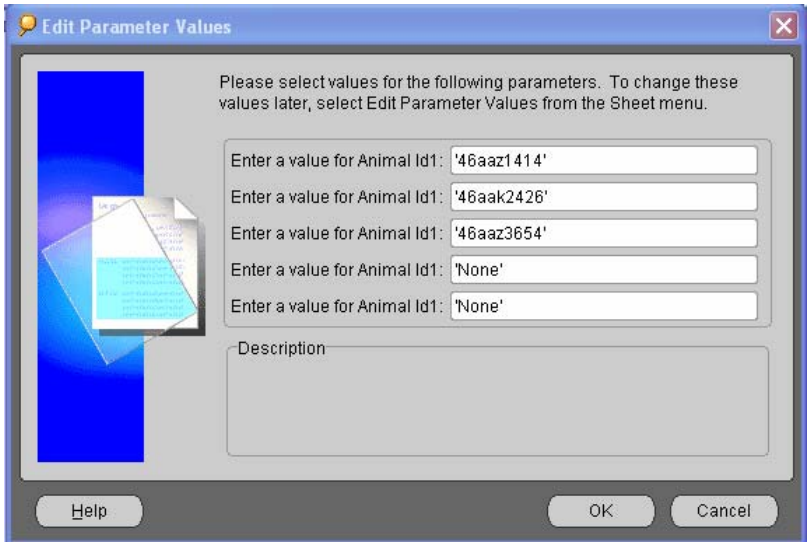
	Prem ID	Prem Name	Prem City	County	Status Code	Issue Date Lb	Issue Date	Issue Rsn	Issue Entry Date	Remarks
1	Prem ID	Prem Name	Prem City	County	TRACE	Iss Date:	18-APR-1997	POS	18-APR-1997	NULL

br_rpt_ceah_tagsearch

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet generates a report with data that is pulled from the Sample Table for Brucellosis.	
Workbook Retrieves Data From:	Sample Table	prem_id, prem_state, id1, id2, id3, id4, id5, id6, es_nr, test_interp, disease, species

To generate a report with this worksheet, you will fill out the following parameter form. You may enter up to five tag numbers. Each field on the form must be filled in; if you do not need to use a field, you must enter the word **`None`** instead.



Below is an excerpt of a printed report generated by this worksheet's query:

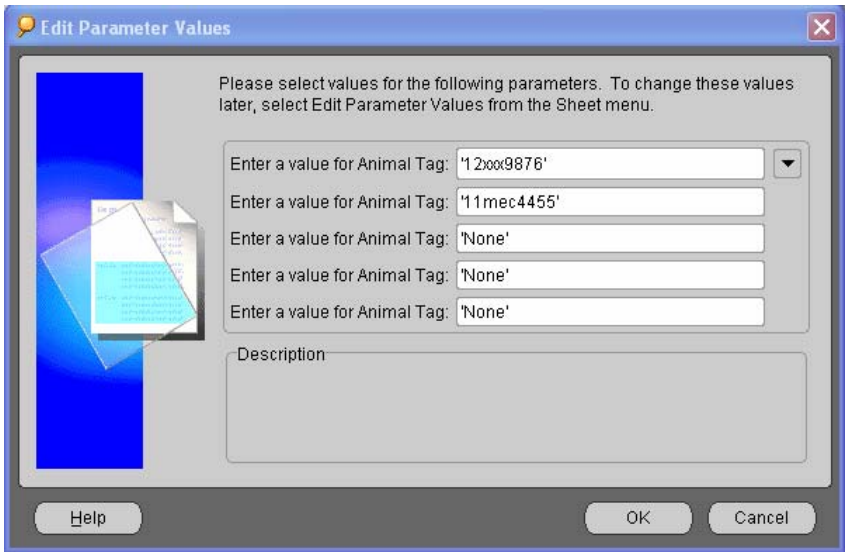
	Prem ID	Prem St	Id1 Lb	Id1	Id2 Lb	Id2	Id3 Lb	Id3	Id4 lb	Id4	Id5 Lb	Id5	Id6 Lb	Id6
1	Prem ID	Prem St	Eartag(Id1):	72AZF1927	Backtag(Id2):	72JD6206	Id3:	NULL	Id4:	NULL	Id5:	V	Id6:	NULL
2	Prem ID	Prem St	Eartag(Id1):	72AZF7464	Backtag(Id2):	72XD1200	Id3:	NULL	Id4:	NULL	Id5:	V	Id6:	NULL

br_rpt_ceah_vactag_search

This workbook is common to all five GDB Business Areas.

Workbook's Objective:	This worksheet queries information for Brucellosis for a particular vactag.	
Workbook Retrieves Data From:	• Premises Table • Event_Summary Table • Sample Table	
To Successfully Run This Worksheet Query:	• Premises Table's prem_ID = Event_Summary Table's prem_ID • Premises Table's prem_state = Event_Summary Table's prem_state • Event_Summary Table's es_nr = Sample Table's es_nr • Event_Summary Table's entry_state = Sample Table's entry_state • Event_Summary Table's disease = Sample Table's disease	

To generate a report with this worksheet, you will fill out the following parameter form. You may enter up to five vactag numbers. Each field on the form must be filled in; if you do not need to use a field, you must enter the word **`None`** instead.



Below is an excerpt of a printed report generated by this worksheet's query:

	Prem ID	Prem St	Id1 Lb	Animal ID1	Id2 Lb	Animal ID2	Id3 Lb	Animal ID3	Es Nr Lb	ES NR	ES Pre
1	Prem ID	Prem St	Eartag(Id1):	NONE	Btg/Bngl(Id2):	NULL	Id3:	NULL	BR cv Nr:	19951790067V	Prem T
2	Prem ID	Prem St	Eartag(Id1):	NONE	Backtag(Id2):	NULL	Id3:	11-00/21K	BR Nr:	20021566228	Prem T
3	Prem ID	Prem St	Eartag(Id1):	NONE	Backtag(Id2):	NULL	Id3:	11-00/21K	BR Nr:	20021566228	Prem T

Chapter 7:
Using Discoverer to Create a New Ad Hoc Query

If you want to create a new search query without using Discoverer's Workbook Wizard or a pre-defined workbook, then this chapter is for you. It will introduce you to Discoverer's **Edit Workscreen** feature, which enables you to write new worksheet queries unassisted.

The topics covered in this chapter appear below:

Creating a New Ad Hoc Worksheet Query Unassisted

In this exercise, you will learn how to build a new worksheet query using a single feature, the **Edit Worksheet** Screen. On this one screen, you can access the entire set of dialog boxes that you would otherwise execute one step at a time if you were using the Workbook Wizard instead

To provide a running example, we will use Discoverer to create a search query that retrieves the same results as the following SQL statement:

```
1      SELECT prem_id, nr_neg, nr_sus, nr_pos
2      FROM gdb_event_summary
3      WHERE event_type = 'TEST'
4        and species in ('BOV','BIS')
5        and disease = 'BR'
6        and event_date between
         to_date ('&begindate','dd-mon-yyyy') and
         to_date ('&enddate','dd-mon-yyyy')
7*       and event_rsn = 'OTH'
```

In plain English, this SQL statement asks the GDB to generate a list of prem_ids and the number of bovine/bison animals that tested either negative, suspect, or positive for brucellosis in private sale-testing. If you were to execute this SQL statement, the GDB would prompt you to specify the beginning and ending dates of the time period for the data you want to retrieve.

1.1 If you have:

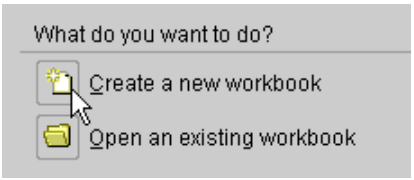
- not yet logged into Discoverer's website, do so now by following the steps below:
  i. At your computer desktop screen, launch the Netscape Navigator web browser.
  ii. In the browser's **Location** field, enter the following URL for Discoverer's website:

      http://cofcas15:7778/discwb4/html/english/netscape/start_nn.htm

  iii. When the **Discoverer Welcome Screen** appears, click on the **Click to Start** magnifying glass image.
  iv. If any security certificates appear, accept each one.
  v. When the **Connect to Oracle Discoverer** login screen appears, enter your **Username**, **Password**, and **Database** information. Then click on [Connect].
  vi. Now go directly to Step 1.2 below.

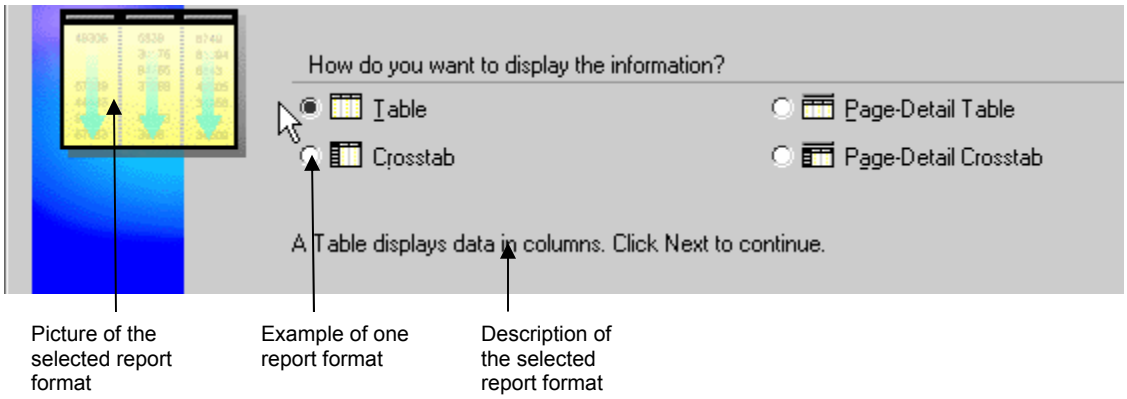
- already logged into Discoverer's website, do the following:
  i. Close the workbook you might currently be working in.
  ii. In the Discoverer menu bar, select the **File → New** menu item.
  iii. Go directly to Step 1.3 now.

1.2 In the **Workbook Wizard, Step 1 of 10** screen, you will see the prompt shown at right.



a. Answer this prompt by clicking on the option, **Create a new workbook**.
b. Go on to Step 1.3.

1.3 You now see a prompt (shown below), asking you to select a default report layout design for your new worksheet query.

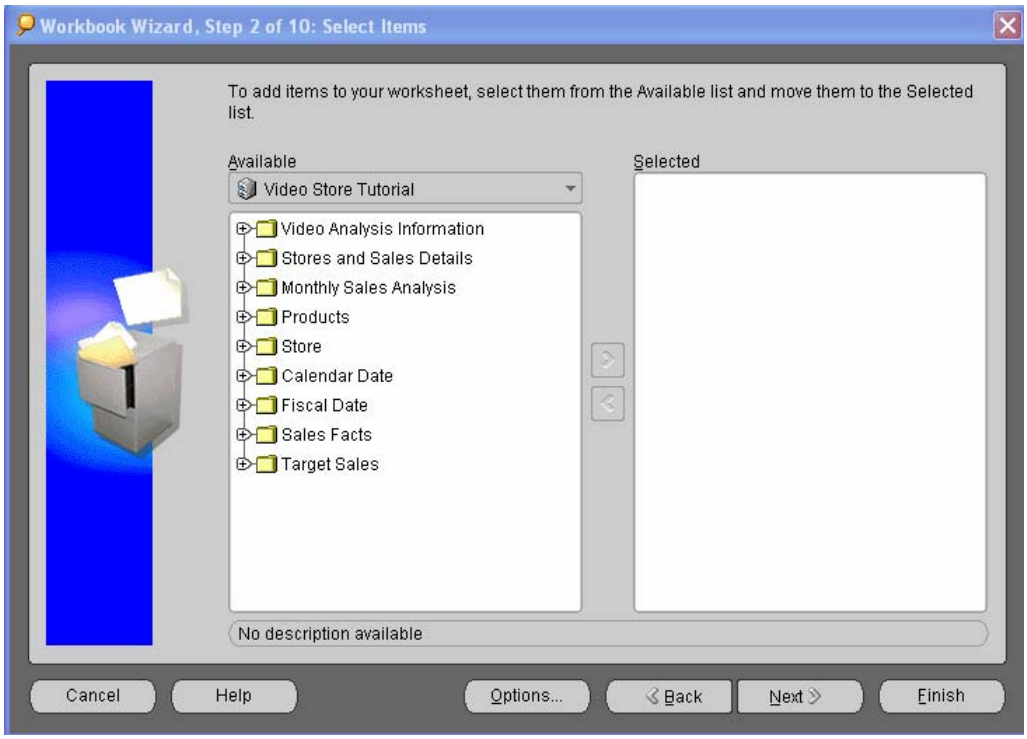


The layout you choose will be used to format any query results you generate while in this worksheet. You can click on each option to see a graphic of how that report format will look. (And you will be able to customize this report layout later.)

a. For the purposes of this exercise, select the **Table** option.

b. Click on [Next].

1.4 The **Workbook Wizard, Step 2 of 10** screen (shown below) now appears.



This screen is the **Item Selector Screen**. Each time you create a new workbook, you will use this screen to specify which data items you want to use in the workbook. Think of your workbook as a folder in which you store every possible data item that you might need to generate reports about.

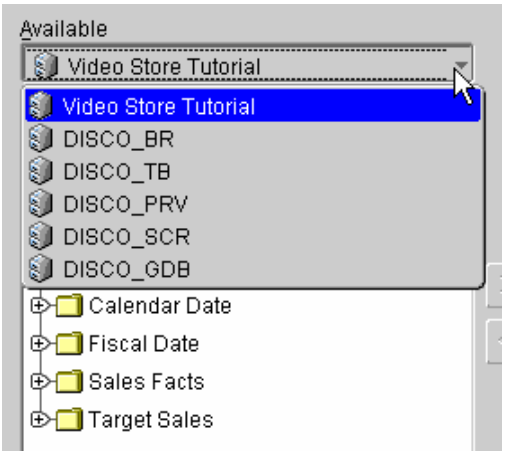
In this initial Discoverer release, you can choose from any of five GDB-related Business Areas (which might also be considered subsets of the GDB database):

Disco_ALL	the Discoverer_All_Diseases Business Area
Disco_BR	the Discoverer_Brucellosis Business Area
Disco_PRV	the Discoverer_Pseudorabies Business Area
Disco_SCR	the Discoverer_Scrapie Business Area
Disco_TB	the Discoverer_Tuberculosis Business Area

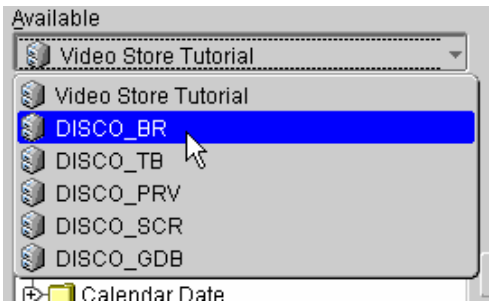
Each Business Area represents one of the VS animal disease control programs and contains any data that might be relevant to that disease program. (The **Disco_ALL** Business Area will contain data from all four individual disease programs listed above.)

Depending on your situation, your system administrator may have granted you access to other databases or Business Areas besides those listed above. Because you want to use just one particular GDB Business Area for this exercise, you need to select it.

a. Directly beneath the **Available** column name, click on the down arrow. A drop-down list of any databases or Business Areas available to you will appear.

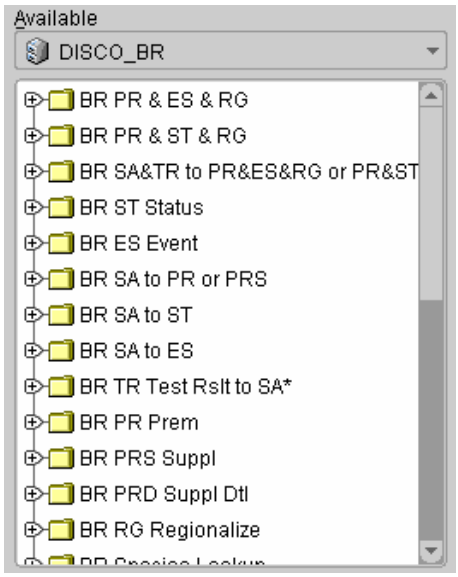


b. Highlight the **DISCO_BR** database choice.



See how the **Available** column's contents (shown at right) now changes to display only those items belonging to this Business Area? Each yellow folder represents one of the following:

- a single GDB table (**`BR ES Event`**)
- a group of pre-joined tables (**`BR PR & ST & RG`**)
- a permitted table join (**`BR SA to ST`**)



1.5 Click on the plus sign (+) next to the **`BR ES Event`** table folder to open it. The folder will expand to show all of the fields (data items) in it.

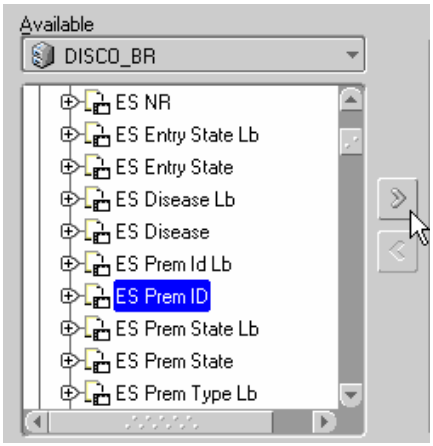
1.6 You now want to copy several fields in this folder over to the **Selected** column.

a. Click on the item name, **`ES Prem ID`**.

b. Click on the Add button (>), as shown in the example at right. This field now appears in the **Selected** column.

c. Do Steps a-b above for each field listed below:

`ES Nr Neg`
`ES Nr Sus`
`ES Nr Pos`



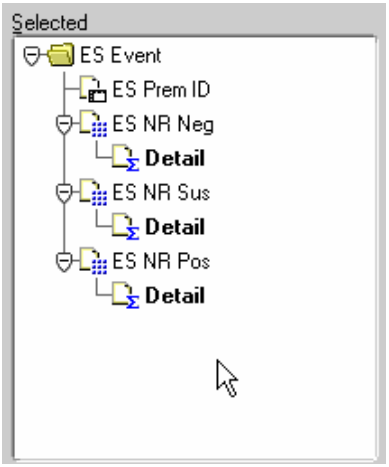
Note: Data items ending with an **`Lb`** suffix (such as **`ES Prem Id Lb`**) refer to the label names that are attached to the data fields found in electronic forms and in any reports that you generate. Because they are label names, they do not contain any actual data.

However, you can and should query these data items that have the **`Lb`** suffix, because they help to further define the origin of the data in non-**`Lb`** fields. For example, if you did a search query for specific animal identification data, the records retrieved could indicate the following:

-- the **`Id1_Lb`** data item = **Id1(eartag):**
-- the **`Id1`** data item = *the actual eartag number*
-- the **`Id2_Lb`** data item = **Id2(backtag/bangle):**
-- the **`Id2`** data item = *the actual bangle number*

1.7 In the **Available** column, click on the minus sign (-) next to the **`BR ES Event`** folder to close it.

Your worksheet's **Selected** column should now look like the example shown at right.



You have just completed the two mandatory tasks required for each new Discoverer query that you write (selecting a report template and selecting the data items for your workbook).

1.8 You now want to exit the **Workbook Wizard** so that you can pick and choose the remaining query-writing tasks that you want to do.

To exit the **Workbook Wizard** feature now, do the following:

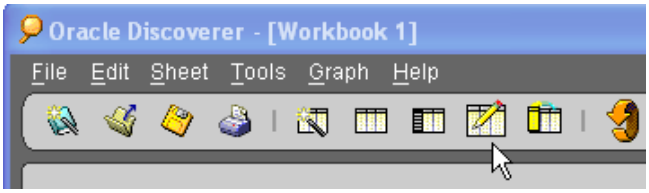
a. Click on [Finish]. Discoverer will immediately try to execute this query.

b. You may get an error message, saying that **`Not all rows have been retrieved. Data may be inaccurate`**. Click on [OK].

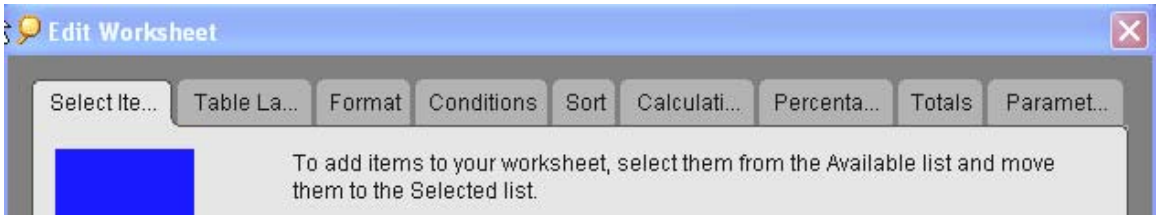
c. You may also see some results displayed in your worksheet. Ignore these results for now.

1.9 Do one of the following commands:

- In the Discoverer menu bar, select the **Sheet → Edit Sheet** menu item.
- In the Discoverer tool bar, click on the **Edit Worksheet** icon symbol (identified by the pointer below).



1.10 The **Edit Worksheet Screen** now appears. Note the set of tabs across the top of the screen. Each tab represents one dialog box that you can open and use to set up your worksheet query's properties.



Tip: If the labels on the tabs appear cut off (as shown in the example above), use your cursor to stretch the right edge of the **Edit Worksheet Screen** horizontally until you can see the full labels on the tabs.

On this screen, you can see the following:

- The **Select Items** tabbed dialog box is already open and active. In its **Selected** column, you should see the data items that you specified back in Steps 1.4-1.6. This means that you have already finished your work in the **Select Items** dialog box.
- The remaining tabbed dialog boxes (**Table Layout, Format, Conditions, Sort, Calculations, Percentages, Totals,** and **Parameters**) are considered optional, in that you can complete any of them depending on the query you are writing.

1.11 At this point, it would be a good idea to specify any printing parameters for the results displayed in either your electronic worksheet or in any hardcopy report that you print out. At minimum, we recommend that you do the following steps:

a. On the **Edit Worksheet Screen**, click on [Options].

b. In the **Options Screen**, you will see two tabbed dialog boxes. Click on the **Query Governor** tab.

c. In the **Query Governor** dialog box, verify that a check mark appears to the left of the **Limit retrieved query data to** field. Then enter a number in this field that represents the maximum number of rows (records) you want your query to display.

d. Click on the **Sheet Format** tab.

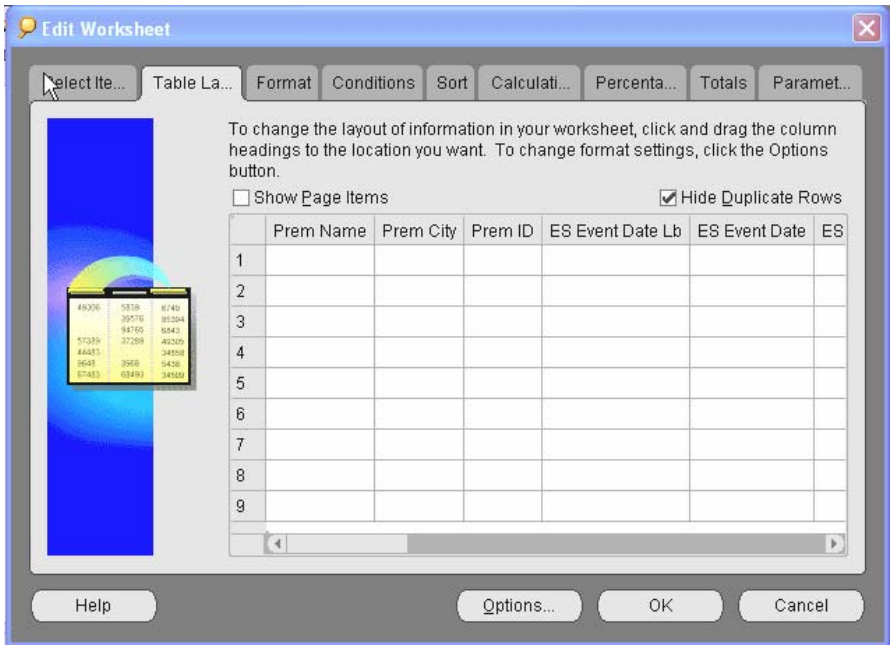
e. In the **Sheet Format** dialog box, enter the number you want in the **Rows per screen page** field. The number you enter will determine how many rows will appear on a worksheet page before the results need to be carried over to additional pages.

f. Click [OK]. You now return to the main **Edit Worksheet Screen**.

1.12 At this point, you can choose which dialog boxes in the **Edit Worksheet Screen** you want to configure next. Use the table below to go to the procedures for each individual dialog box.

Name of Dialog Box	Description of Dialog Box	Go To This Step
Table Layout	You can configure the arrangement of the columns in a report. Any changes you make here will override the report template for the entire workbook.	1.13
Format	You can configure formatting options for the headings and data within a specific worksheet. Any changes you make here will override the report template for the entire workbook.	1.14
Conditions	You can apply a filter to a data item in order to limit the number of records your query will retrieve.	1.15
Sort	You can specify the criteria used by Discoverer to arrange a worksheet's results within a particular column, in either ascending or descending order.	1.16
Calculations	You can assign expressions (mathematical formulas, for example) to data items in your query.	1.17
Percentages	You can apply this specific calculation type to either sub-totals or grand totals in a worksheet's results.	1.18
Totals	You can add calculations to a worksheet query in order to summarize or average the values in a specific column.	1.19
Parameters	You can customize various values within a condition. This lets you change conditions without changing the query.	1.20

1.13 Click on the **Table Layout** tab to open the **Table Layout** dialog box (shown below):



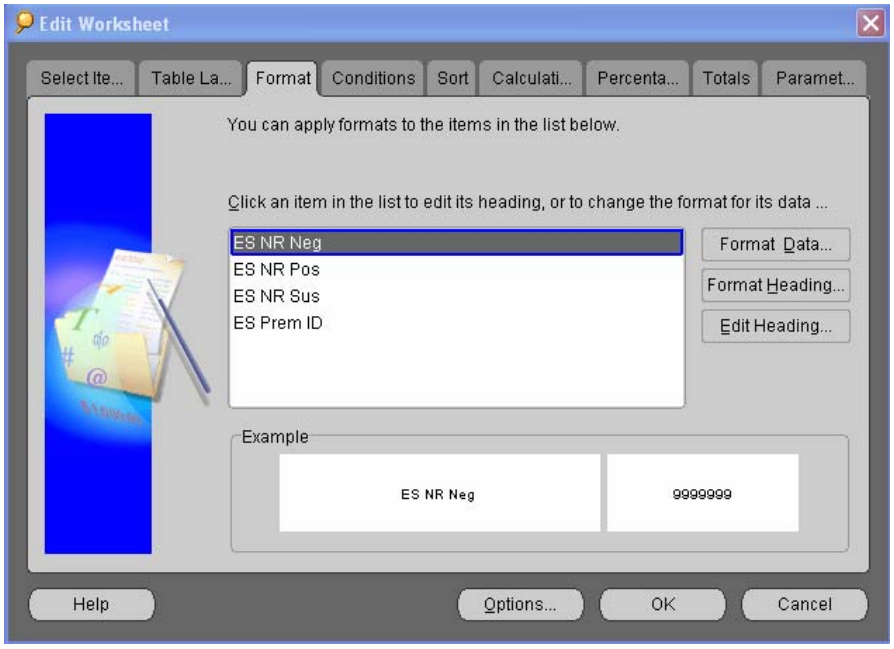
In this dialog box, you can change the layout of your default report.

a. To re-arrange the order in which the columns of the report appear, you can click-and-drag a column heading from its original position to another position. Feel free to try this now.

b. If you:

- Need to complete another dialog box, click on the appropriate tab for that dialog box.
- Have completed all of the dialog boxes needed for constructing your search query, go directly to Step 1.21 now to learn how to run this query.

1.14 Click on the **Format** tab to open the **Format** dialog box (shown below):



In this dialog box, you have the ability to change the appearance of both the column headings of your report (i.e., **`ES Prem ID`** and **`ES NR Neg`** in the screen shot below) as well as the data that will appear in the rows of the report.

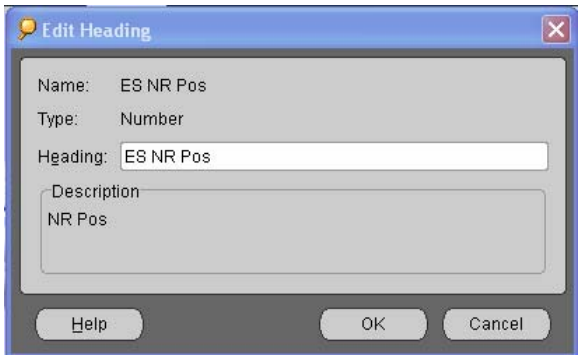
Remember that for this exercise, your report format is currently set to the "Table" format and looks similar to the screen image shown back in Step 1.13.

a. Click once on the column heading, **`ES NR Pos`**.

b. To rename this heading, click on the [Edit Heading…] button.

c. In the **Edit Heading** pop-up window (shown at right), change **`ES NR Pos`** to **`NR Animals Pos`**. Then click [OK].

   Back in the **Format** dialog box, you can see this change in the **Example** field.



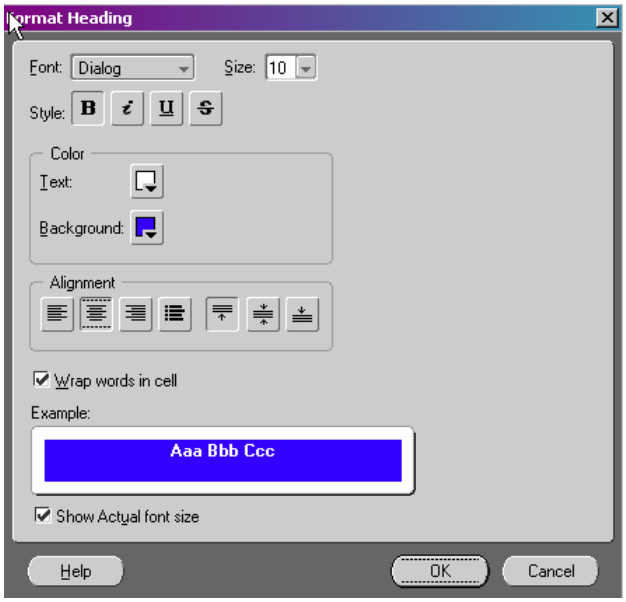
d. Now click on the item, **`ES Prem ID`**

e. Click on the [Format Heading…] button.

f. In the **Format Heading** pop-up window, choose the options indicated below to change the appearance of the **`ES Prem ID`** column heading.

- Make the text appear in white letters.
- Make the background color of the column heading dark (blue).
- Use Dialog as the font type, bold as the font style, and 10 pt as the font size.
- Center the text inside the column cell.

All of these options are indicated in the following screen shot:



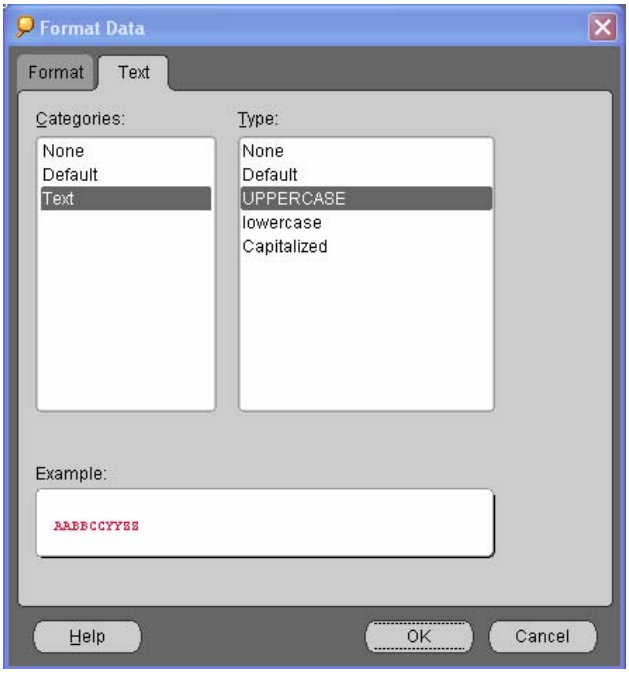
After you have specified all of the options you want, click [OK] to return to the **Format** dialog box. Again, check the Example field to see what this modified heading will look like.

g. You can customize the report's data in the same way that you did the report's column headings. To do so, click on the [Format Data…] button.

h. In the **Format Data** pop-up window, there are two tabbed pages, **Format** and **Text**. Both contain a variety of options for you to use. Remember, the options you select on these two pages will affect all of the data in every record displayed in your report.

In the example at right, various options were selected on both the **Format** and **Text** tabbed dialog boxes. The result is that all text data in any query results will appear in red uppercase letters, using the DialogInput font type and 10 pt. font size.

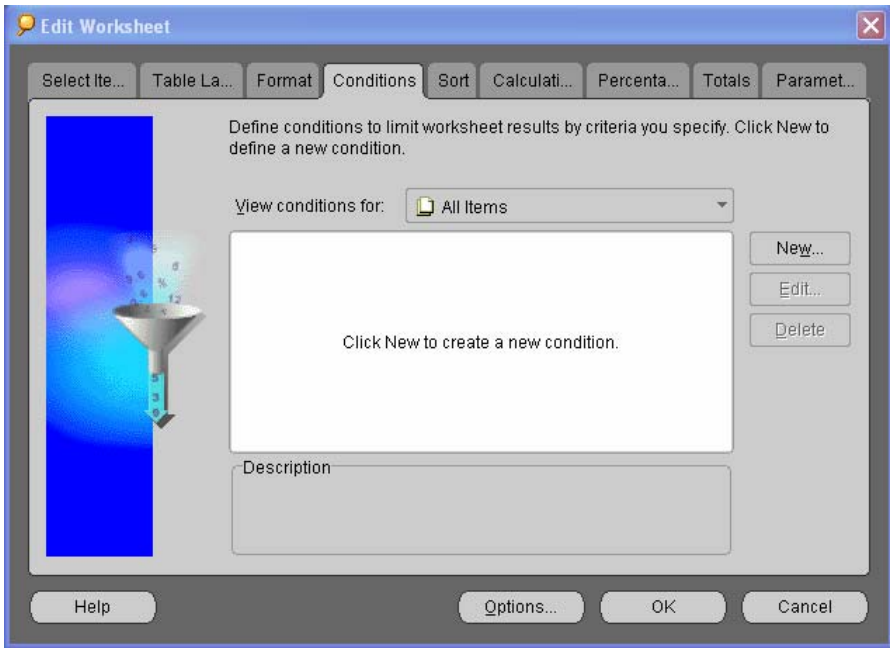
After you have specified all of the options you want on each page, click [OK] to return to the **Format** dialog box within the **Edit Worksheet Screen**.



i. If you:

- Need to complete another dialog box, click on the appropriate tab for that dialog box.
- Have completed all of the dialog boxes needed for constructing your search query, go directly to Step 1.21 now to learn how to run this query.

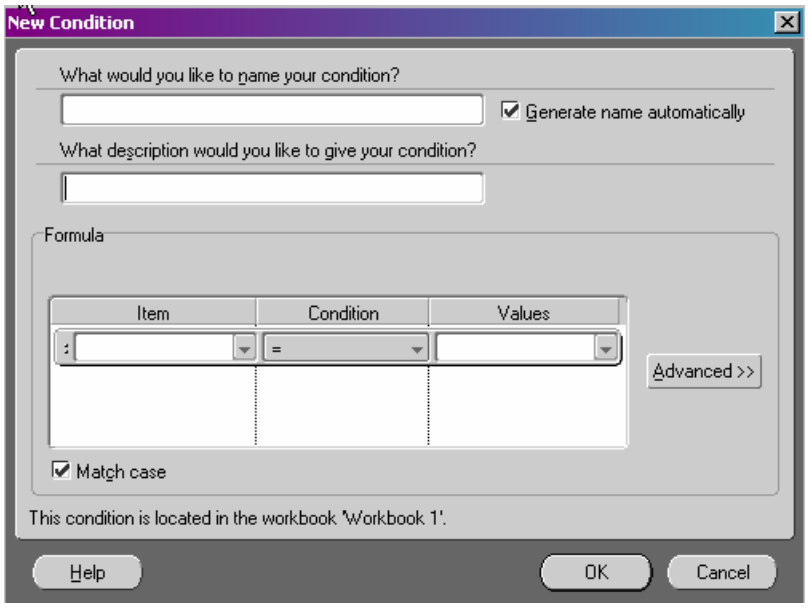
1.15 Click on the **Conditions** tab to open the **Conditions** dialog box (shown below):



On this screen, you will construct the actual search query itself, by creating several condition statements:

a. Verify that the **`View conditions for`**: field is showing **`All Items`**.

b. Click on [New…]. The **New Condition** pop-up window appears.



c. The pointer is in the **`What description would you like to give your condition?`** Field. Type in a statement that describes how the search query will filter the data in your worksheet.

As an example, type the following: **`Lists BOV-BR test results, sorted by their prem IDs.`**

d. Use your mouse to stretch the **New Condition** screen a bit wider so that you can more easily see your query as you construct it line by line.

e. *Important:* Uncheck the **Match case** option in the lower-left corner of the **New Condition** screen. There should be no check mark appearing in this box.

(There is a reason why you did this. Most data stored in the GDB is stored in uppercase letters. If any prompts for starting a query are entered in lowercase letters while this **Match Case** option is checked, then no GDB data will be found and displayed in the output report.)

> Note: Be sure to do Step 1.15e above. If you do not, any reports you generate with this search query may be incomplete.

f. Click on [Advanced>>] to start building your search query by creating the first condition for it within the *Formula* block.

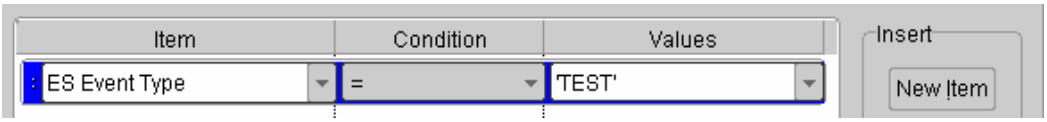
i. In the **Item** column, click the down arrow to make a drop-down list appear. In this list, find and select the **`BR ES Event.ES Event Type`** field.

ii. In the **Condition** column, verify that an equal sign (**=**) is displayed.

iii. In the **Values** column, do one of the following:

- Click the down arrow. In the drop-down list, put a check mark in the box next to the **`TEST`** option.
- Type **`'TEST'`** directly into the **Values** field. (Be sure to include the single quotes before and after **`TEST`** as you type.)

Your query should now look like this:



g. To create the second condition, click on [New Item] again.

i. In the **Item** column for this second condition, click the down arrow and select **`BR ES Event.ES Species`**.

ii. In the **Condition** column, click on the down arrow and select the **`IN`** operator from the drop-down list.

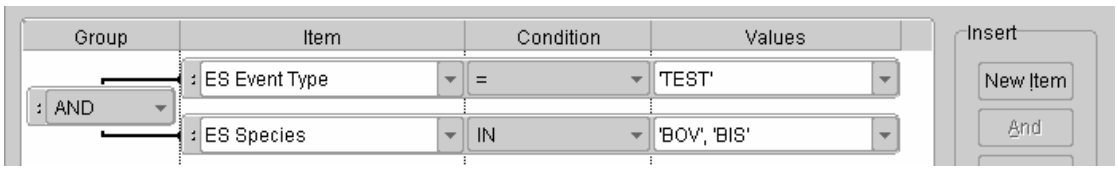
iii. In the **Values** column, do one of the following:

- Click the down arrow. In the drop-down list, put a check mark in the box next to the **`BOV`** option.
- Type **`'BOV',`** directly into the **Values** field. (Be sure to include the single quotes before and after **`BOV`** as you type. Also include the comma and one space after the second single quote.)

iv. Again in the **Values** column, do one of the following:

- Click the down arrow. In the drop-down list, put a check mark in the box next to the **`BIS`** option.
- Type **`'BIS'`** directly into the **Values** field. (Be sure to include the single quotes before and after **`BIS`** as you type.)

Your search query should now look like this:

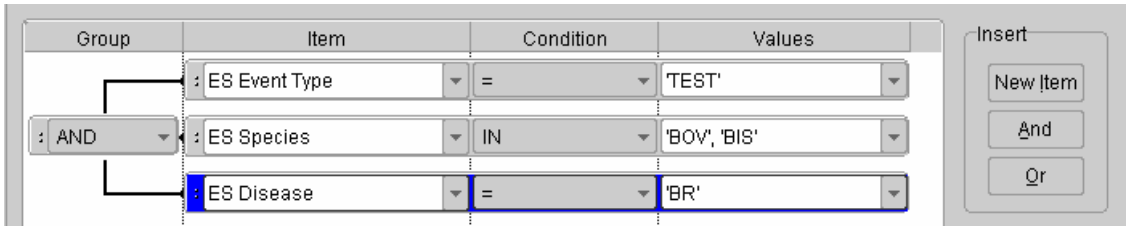


h. To create the third condition, click on [New Item] again.

i. In the **Item** column, select **`BR ES Event.ES Disease`**.

ii. In the **Condition** column, verify that an equal sign (**=**) is displayed.

iii. In the **Values** column, type **`'BR'`** (be sure you type the single quote before and after **`BR`**).



i. Create the fourth condition. (You may want to make the **New Condition** dialog box both wider and taller so that you can better see your work.)

   i. Click on [New Item].

   ii. In the **Item** column for this third condition, click the down arrow and select **`BR ES Event.ES Event Date`**.

   iii. In the **Condition** column, select the **`BETWEEN`** operator.

   iv. In the **Values** column, click on the first down arrow and select the **New Parameter** option. A **New Parameter** window will appear.

      a. In the **What do you want to name this parameter?** text field, type **`Event Begin Date`**.

      b. In the **What prompt do you want to show other users?** text field, type **`Enter the event's starting date:`** . (Be sure to include the colon symbol (:) after the word **`date`**.)

      c. Do not type anything into the **What default do you want to give this parameter?** text field.

      d. Click [OK]. You return to the **New Condition** screen.

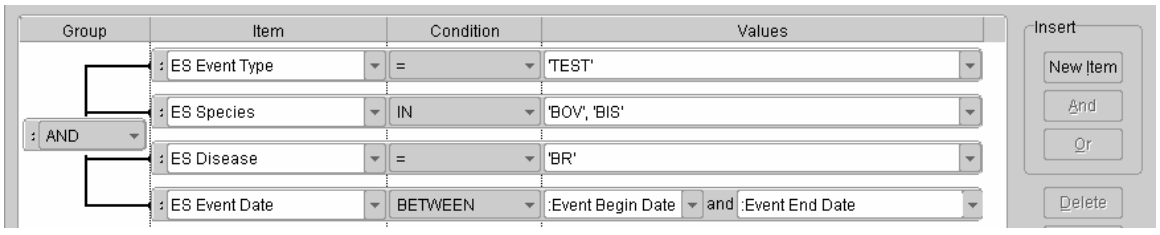
   v. In the **Values** column again, click on the second down arrow and select the **New Parameter** option. The **New Parameter** window will appear again.

      a. In the **What do you want to name this parameter?** text field, type **`Event End Date`** .

      b. In the **What prompt do you want to show other users?** text field, type **`Enter the event's ending date:`** .

      c. Click [OK]. You return to the **New Condition** screen.

   Your query should now look like this:



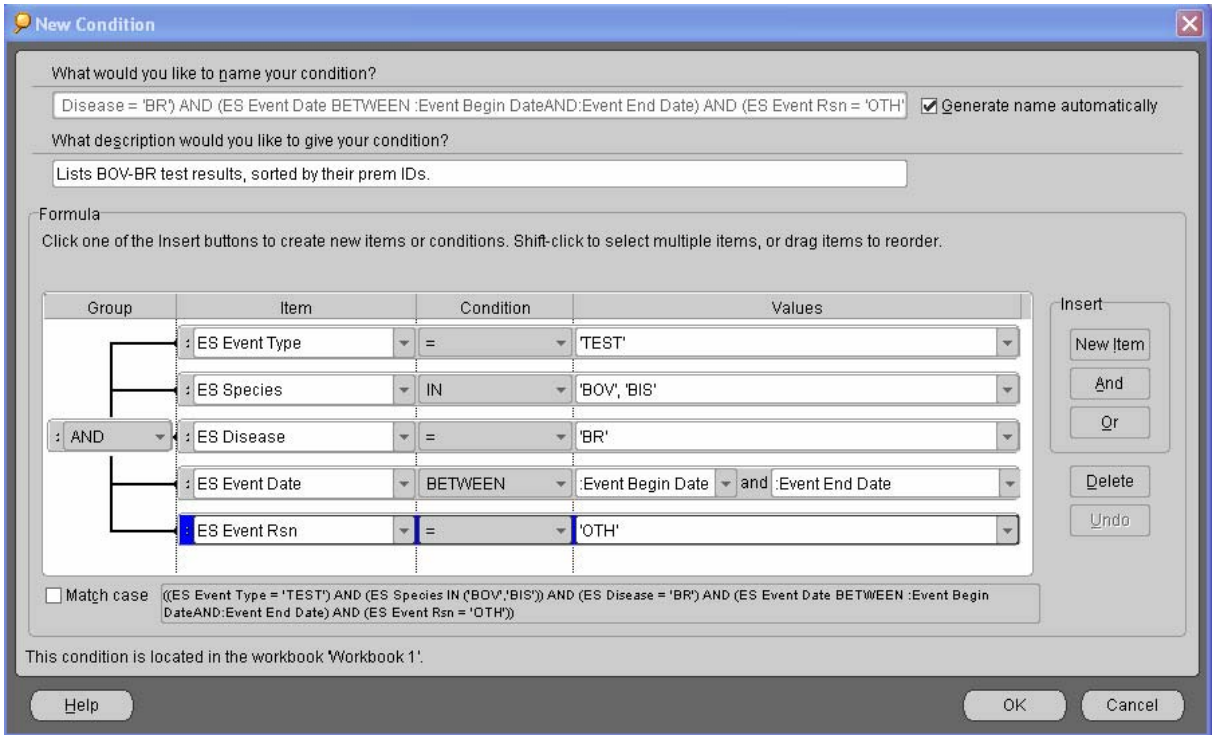
j. Create the fifth and last condition. Click on [New Item].

i. In the **Item** column for this third condition, click the down arrow and select **`BR ES Event.ES Event Rsn`**.

ii. In the **Condition** column, verify that an equal sign (**=**) is displayed.

iii. In the **Values** column, type **`'OTH'`** (be sure you type the single quote before and after **`OTH`**).

You have finished constructing your query. It should look like this:

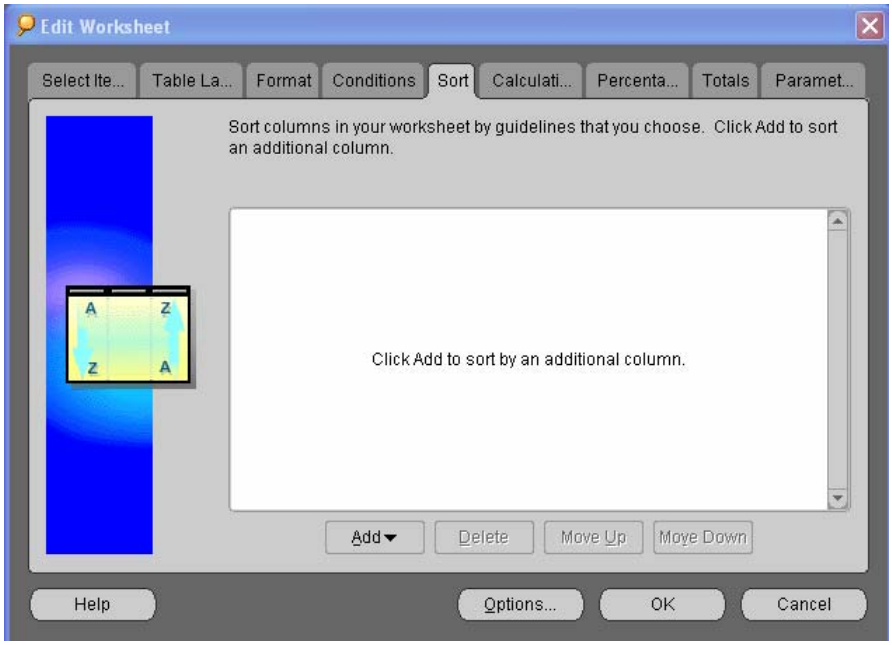


iv. Click the [OK] button to return to the **Conditions** dialog box within the **Edit Worksheet Screen**. You now see the new Condition statement that you just created.

k. If you:

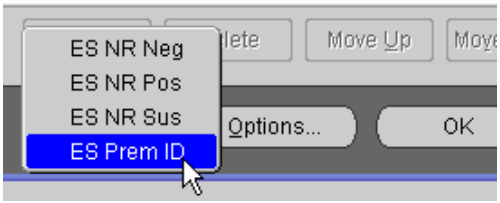
- Need to complete another dialog box, click on the appropriate tab for that dialog box.
- Have completed all of the dialog boxes needed for constructing your search query, go directly to Step 1.21 now to learn how to run this query.

1.16 Click on the **Sort** tab to open the **Sort** dialog box (shown below):



In this screen, you can specify which items you want your report results to be sorted by. If you select multiple items to use as sorting criteria, you can assign a priority level to each item.

a. Click [Add▼]. A pop-up list of the items in your worksheet appears.

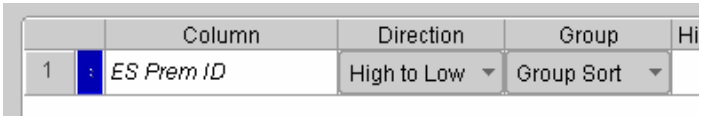


b. Select **`ES Prem ID`** from the list.

c. In the **Direction** column, change this item's sorting arrangement from **`Low to High`** to **`High to Low`**. So a set of alphabetical results would be sorted Z→A, while a set of numerical results would be sorted 10→1.

d. In the **Group** column, click on the **Group Sort** option. Doing so changes this item from a straightforward sort to a group sort, in which the results are split into groups based on similar values (such as the same year, the same geographic location, etc.).

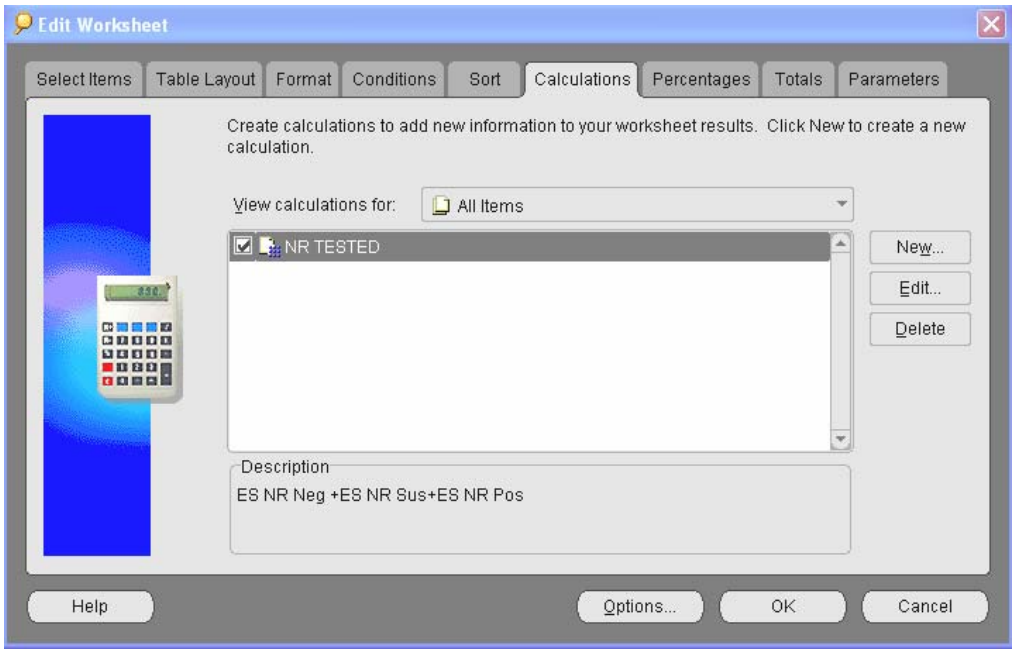
Your **Sort** tabbed page should now look like this:



e. If you:

- Need to complete another dialog box, click on the appropriate tab for that dialog box.
- Have completed all of the dialog boxes needed for constructing your search query, go directly to Step 1.21 now to learn how to run this query.

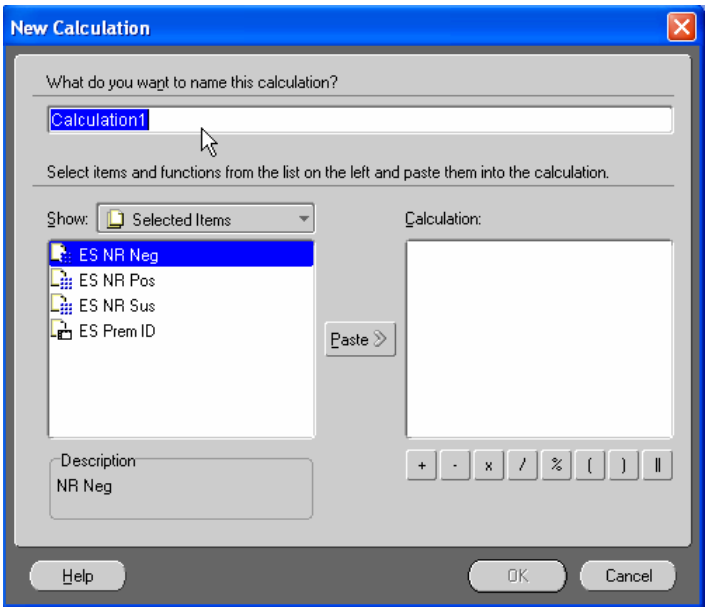
1.17 Click on the **Calculations** tab to open the **Calculations** dialog box (shown below):



In this dialog box, you can apply a calculations definition to one or more items.

(The search query you are currently constructing does not contain any data points that would use a calculation definition. So the rest of this step is just informative. Read it, or skip directly to Step 1.19, as you wish.)

a. Click [New…]. A **New Calculation** window (shown below) will appear.

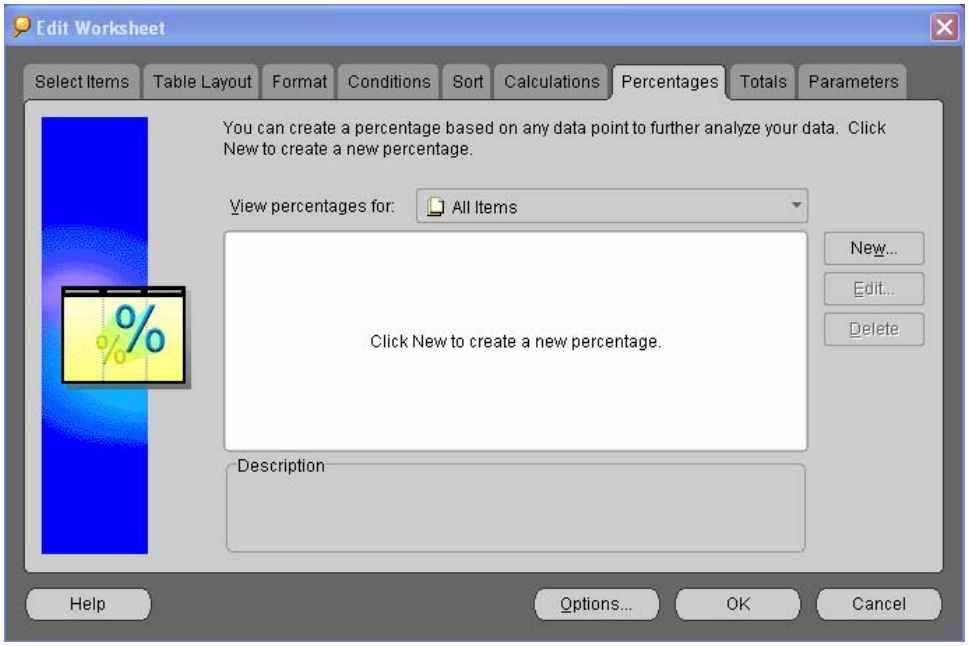


b. Try out the options in this window. Then click [Cancel] to exit without saving your work. You are returned to the **Calculations** dialog box.

c. If you:

- Need to complete another dialog box, click on the appropriate tab for that dialog box.
- Have completed all of the dialog boxes needed for constructing your search query, go directly to Step 1.21 now to learn how to run this query.

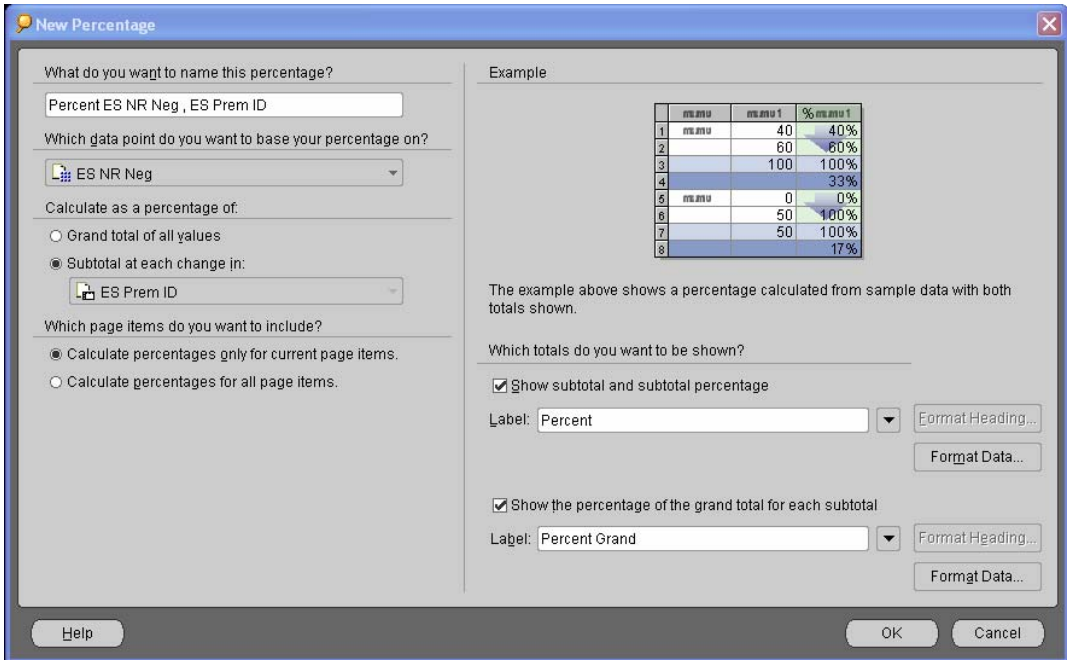
1.18 Click on the **Percentages** tab to open the **Percentages** dialog box (shown below):



In this dialog box, you can apply a percentage definition to one or more items.

(The search query you are currently constructing does not contain any data points that could use a percentage definition. So the rest of this step is just informative.)

a. Click [New…]. A **New Percentage** window will appear.

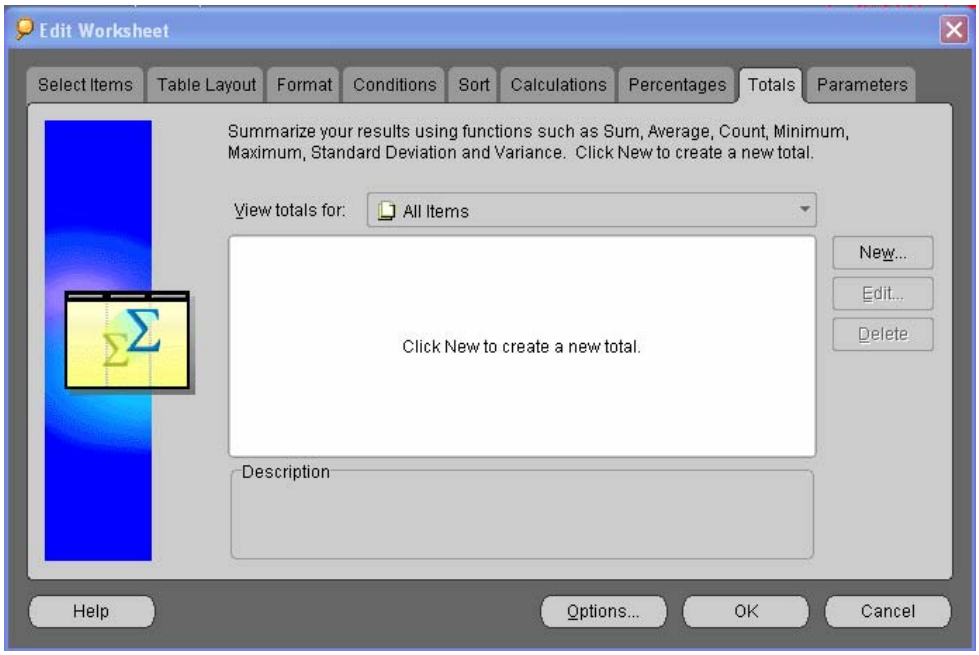


b. Try out the options in this window to apply a percentage definition to a data point. Then click [Cancel] to exit without saving your work. You are returned to the **Percentages** dialog box.

c. If you:

- Need to complete another dialog box, click on the appropriate tab for that dialog box.
- Have completed all of the dialog boxes needed for constructing your search query, go directly to Step 1.21 now to learn how to run this query.

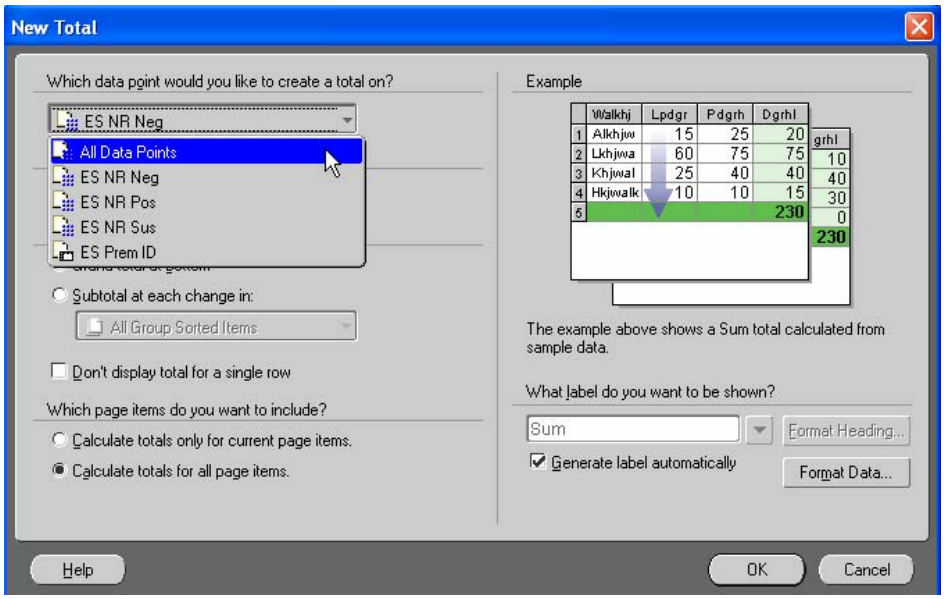
1.19 Click on the **Totals** tab to open the **Totals** dialog box (shown below):



In this dialog box, you can apply a totals definition to one or more items.

a. Click [New…]. A **New Total** window (shown below) will appear.

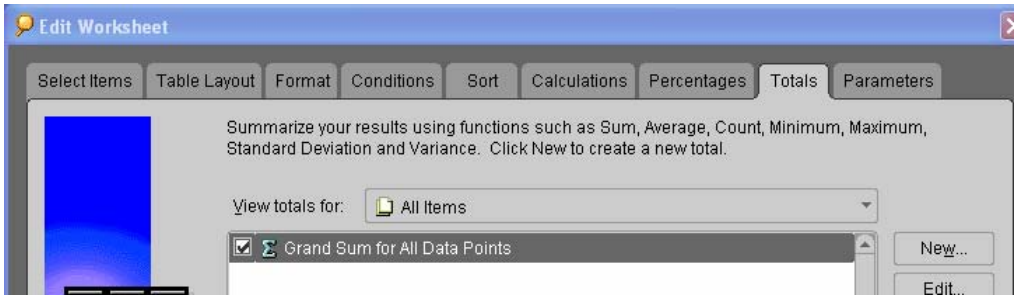
b. Under **Which data point would you like to create a total on?**, select **`All Data Points`**.



c. Under **Which page items do you want to include?**, select **`Calculate totals for all page items`**.

d. There are other options in this window, but they are not needed for the current search query.

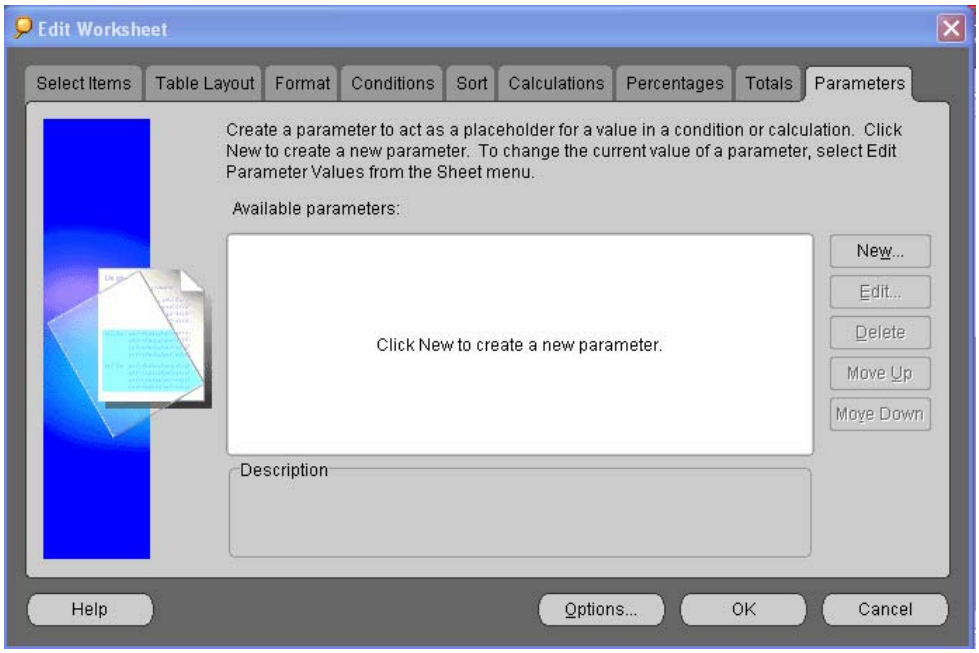
e. Click [OK] to return to the **Totals** dialog box. Your new totals definition (shown below) now appears on this screen.



f. If you:

- Need to complete another dialog box, click on the appropriate tab for that dialog box.
- Have completed all of the dialog boxes needed for constructing your search query, go directly to Step 1.21 now to learn how to run this query.

1.20 Click on the **Parameters** tab to open the **Parameters** dialog box (shown below):



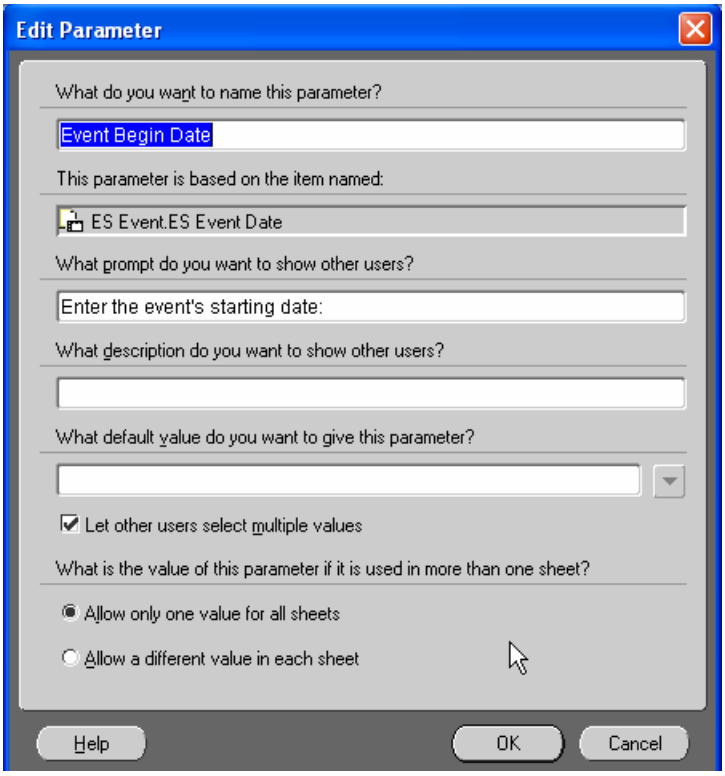
In this dialog box, you can create, apply, and edit a parameter definition to an item.

(However, for the search query you are currently constructing, you already did this work back in Step 1.15 when you created your query conditions. That is why you can see two parameters listed in the **Available parameters** field. So the rest of this step is just informative.)

a. You can do either of two tasks:

- Edit a parameter that already exists in your search query. To do this task, highlight the parameter shown in the **Available Parameters** list. Then click [Edit…].
- Add a new parameter to your search query. To do this task, click [New…].

An **Edit Parameter** (shown below) or **New Parameter** window will appear.



b. Fill out the fields in this window as desired.

c. Click [OK] to return to the **Parameters** dialog box. Your new or revised parameter definition now appears on this screen.

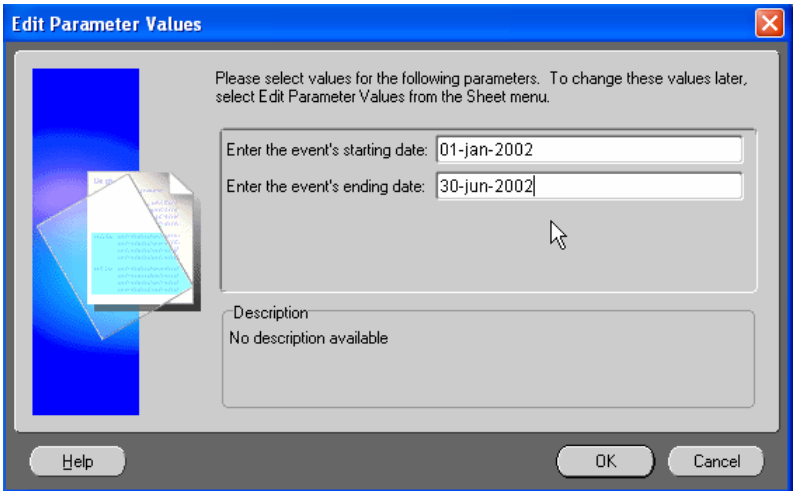
d. If you:

- Need to complete another dialog box, click on the appropriate tab for that dialog box.
- Have completed all of the dialog boxes needed for constructing your search query, go directly to Step 1.21 now to learn how to run this query.

1.21 You are now ready to run your new search query. In any of the tabbed dialog boxes within the **Edit Worksheet Screen**, click on [OK].

Discoverer will start running your search query by displaying a prompt window. This window contains the two prompts that you originally created back in Step 1.15.

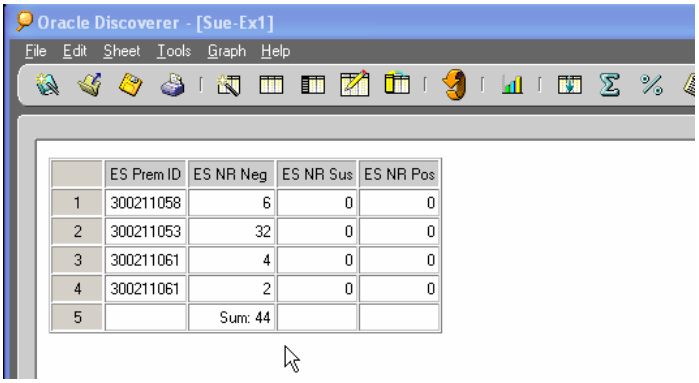
a. Specify the date range that you want your report to cover by answering the two prompts, as shown below.



Note: Whenever you need to enter a date value into a Discoverer parameter form, be sure to use the Oracle format for entering dates. This format is DD-MON-YYYY, where
DD are the two digits for the day
MON are the first three letters of the month's name
YYYY are the four digits for the year
Example: 06-SEP-2003

b. Click [OK]. Your search query will be executed immediately. Any search results found will be displayed in the default report format you chose.

A **Results Screen** like the one shown below will appear in your worksheet.

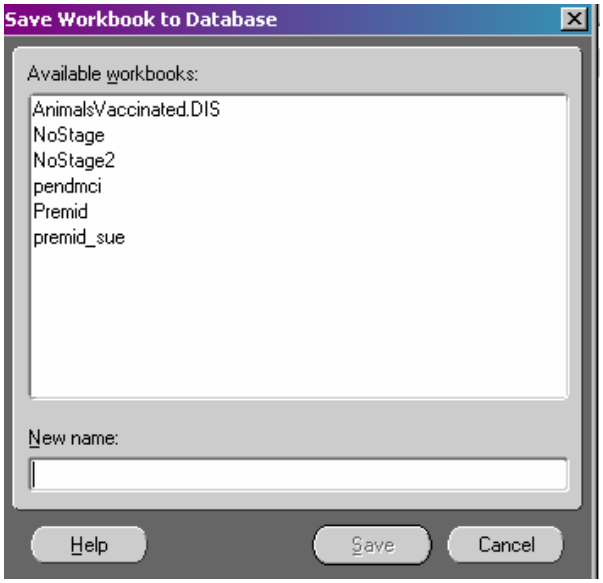


	ES Prem ID	ES NR Neg	ES NR Sus	ES NR Pos
1	300211058	6	0	0
2	300211053	32	0	0
3	300211061	4	0	0
4	300211061	2	0	0
5		Sum: 44		

1.22 After doing all this work, be sure to save your search query/workbook.

Before doing so, check with your database administrator first. He or she may have set up Discoverer so that your office has both state-level and personal-level accounts. In such a case, your administrator may ask you to always create and save new workbooks to your personal Discoverer account only.

a. In the Discoverer menu bar, select the File→Save command. The following **Save Workbook to Database** pop-up window will appear.



b. In the **New name** text field, enter the name you want your search query/workbook to be saved under.

Be careful to give your new workbook a unique name. Do not save it under a generic name, such as **`Workbook1`**.

(There are many other individuals who will also be using this Discoverer product on the same GDB database. If several people save their workbooks under the same name, these same workbook files will be overwritten each time.)

It is recommended that your office create a set of naming convention guidelines for its Discoverer workbooks and reports. Some suggestions appear below:

Intended Use of Naming Convention	Syntax of Naming Convention	Examples

For an individual's workbooks	Individual's name_description or date of workbook	`Harris_premid_workbook1`
		`Strathburg_year2002`
		`Bruce_tb_farms_2001`

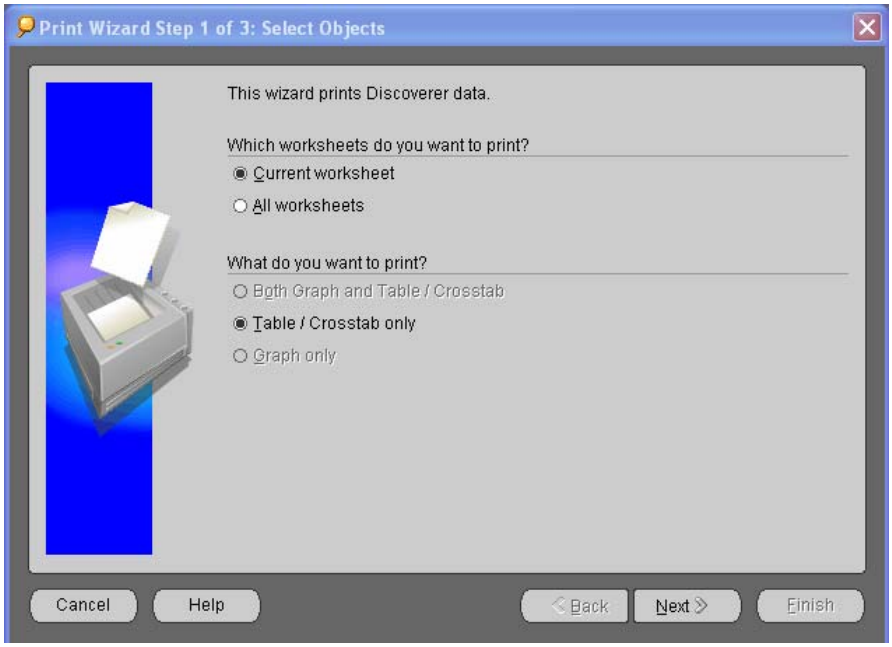
For workbooks shared by everyone in an office	GDB Business Area_rpt_office or state_description of workbook	`BR_rpt_cinncinati_premid` `PRV_rpt_AZ_fed_2003`

Printing Reports from a Worksheet Query

In this exercise, you will learn how to use the interactive Discoverer Print Wizard tool to print reports which contain the results of a worksheet query.

1.1 Open the worksheet whose results you want to print.

1.2 In the Discoverer menu bar, select the **File → Print** menu item. The **Print Wizard, Step 1 of 3** screen will appear.



1.3 In this screen, there are two prompts for you to specify your preferences:

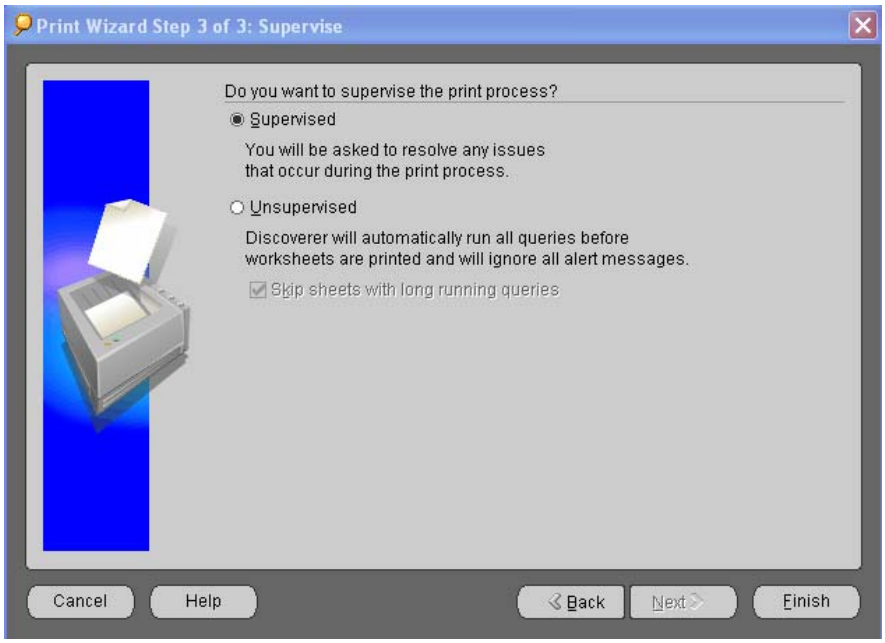
- You can print either the worksheet currently displayed onscreen or the entire workbook that includes the current worksheet.
- You can print the results in any of several formats: as a graph alone, as a table/crosstab alone, or as both a graph and table/crosstab.

Specify your preferences, then click [Next>]. The The **Print Wizard, Step 2 of 3** screen will appear.

1.4 If one of the report formats you wanted was a graph, you will see prompts asking how you want to customize it. Answer these prompts, then click [Next>].

1.5 The **Print Wizard, Step 2 of 3** screen now prompts you to enter the values that the search query will be executed on.

After entering these values, click on [Next>]. The **Print Wizard, Step 2 of 3** screen will then appear.



1.6 In this screen, choose whether you want to supervise the printing process or not. Then click on [Finish].

1.7 You now see a **Print** dialog box, in which you can specify the printer/plotter you want to use as well as any printing properties you want applied to the hardcopy printout itself.

After you have specified all the options in this dialog box, click on [OK] or [Finish] or [Done] or [Run] (or any other appropriate command). Discoverer will execute the query and print it out according to your specifications.

Chapter 8:
Managing Your Discoverer Workbooks

Once you start writing and executing Discoverer queries, you will quickly build up a collection of workbooks that need to be managed. This chapter provides the procedures you should use for these administrative-type tasks.

The topics covered in this chapter appear below:

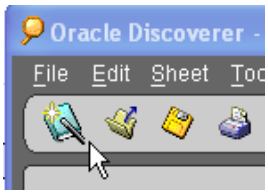
Workbook-Related Tasks

This section covers the most common procedures you will do with any Discoverer workbooks.

Creating a New Workbook

To start a new workbook, do the following steps:

1. Use one of the following commands:
   - In the Discoverer menu bar, click on **File → New**.
   - In the Discoverer tool bar, click on the **New Workbook** icon symbol (identified by the pointer at right).



   This will start up the **Discoverer Workbook Wizard** feature. The **Discoverer Workbook Wizard – Step 1 of 10** screen will appear.

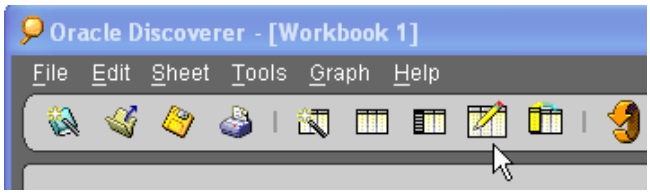
2. Use the **Workbook Wizard** to do the following minimum required steps:
   a. In the **Step 1 of 10** screen, select the report template style you want the workbook to use initially. Click [Next].
   b. In the **Step 2 of 10** screen, select the GDB Business Area you want to use. Then add data items from this Business Area into your new workbook. Click [Next].
   c. In the **Step 3 of 10** screen, change, if desired, the default report layout by re-arranging table columns and/or formatting table headings. Then click [Next].
   d. In the **Step 4 of 10** screen, specify, if desired, any formatting for the data items that will be retrieved.

   You have now finished the minimum required setup tasks for the first worksheet in your new workbook.

3. At this point, you can either:

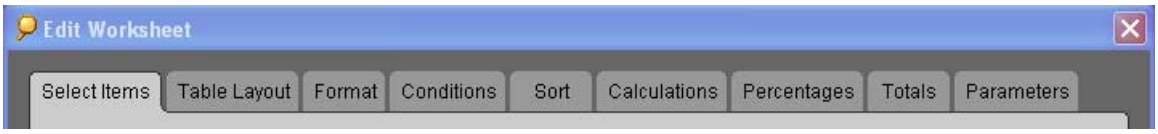
- continue using the Workbook Wizard to set up the rest of this worksheet's properties step-by-step. To continue, click [Next].

- leave the Workbook Wizard. Click [Finish].



The query you just created will run. After it finishes, you can then click on the **Edit Worksheet Screen** icon (identified by the pointer at right) in the Discoverer tool bar.

Once this screen (opens, you can pick and choose which worksheet properties you want to work on by clicking on any of the tabbed dialog boxes (shown below), such as **Format**, **Sort**, and **Percentages**.



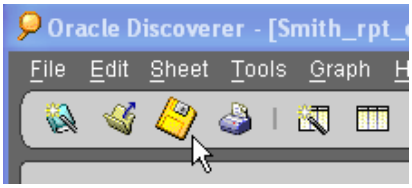
Saving a New Workbook

Before you save your first workbook, check with your data administrator. He or she may have set up Discoverer so that your office has both state-level and personal-level accounts. In such a case, your administrator may ask you to always create and save new workbooks to your personal Discoverer account only.

To save a new workbook you just created, do the following:

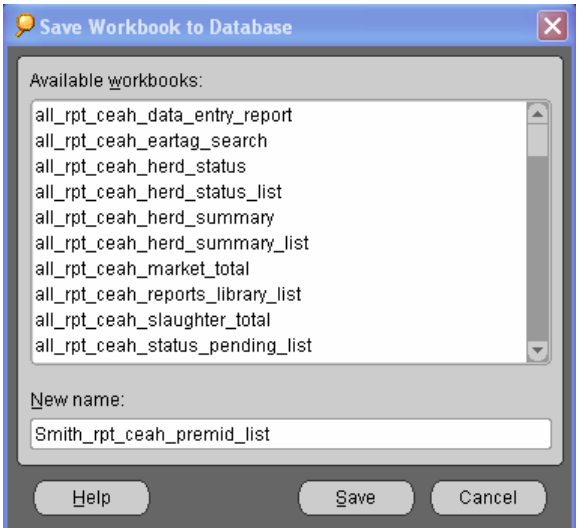
1. Have the new workbook open and onscreen. Now use one of the following commands:

   - In the Discoverer menu bar, click on **File → Save**.
   - In the Discoverer tool bar, click on the **Save Worksheet** icon symbol (identified by the pointer at right).



2. A **Save Workbook to Database** popup window (at right) will appear. In the **New Name** field, type in the name you want to give to this workbook. Be careful to give your new workbook a unique name. Do not save it under a generic name, such as **`Workbook1`**.

   (There are many other individuals who will also be using this Discoverer product on the same GDB database. If several people save their workbooks under the same name, these same workbook files will be overwritten each time.)



   It is recommended that your office create a set of naming convention guidelines for its Discoverer workbooks and reports. Some suggestions appear below:

Intended Use of Naming Convention	Syntax of Naming Convention	Examples

For an individual's workbooks	Individual's name_description or date of workbook	`Harris_premid_workbook1`
		`Strathburg_year2002`
		`Bruce_tb_farms_2001`

For workbooks shared by everyone in an office	GDB Business Area_rpt_office or state_description of workbook	`BR_rpt_cinncinati_premid` `PRV_rpt_AZ_fed_2003`

Duplicating an Existing Workbook

When you duplicate an existing workbook, you are saving it under a different workbook name. Essentially, you are executing a "Save As" command on the workbook. Discoverer will create a new copy of the workbook with the same query and formatting properties. However, any results from the original workbook will not appear in the new, duplicate workbook.

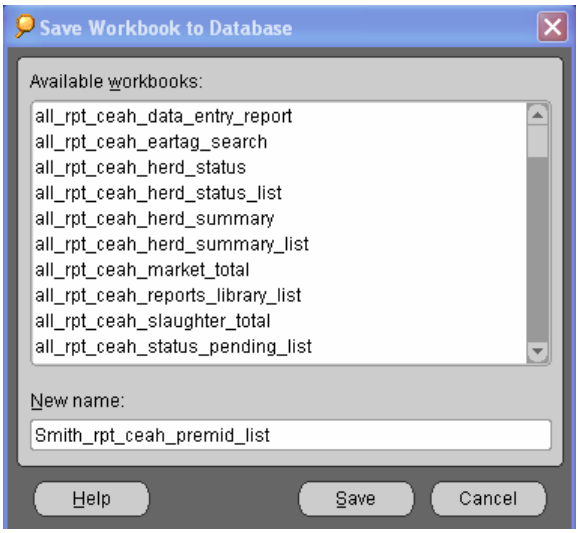
Again, you should check with your data administrator. He or she may want you to create, save, and duplicate workbooks only to your personal Discoverer account rather than to an office or state account.

To save a new workbook you just created, do the following:

1. Have the original workbook open and onscreen. In the Discoverer menu bar, click on **File → Save As**.

2. A **Save Workbook to Database** popup window (at right) will appear. In the **New Name** field, type in the name you want to give to this workbook. Be careful to give the duplicate workbook a unique name.

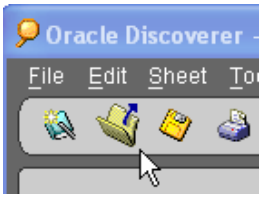
   (You may want to refer back to the naming convention suggestions provided in the earlier procedure, *Saving a New Workbook*.)



Opening an Existing Workbook

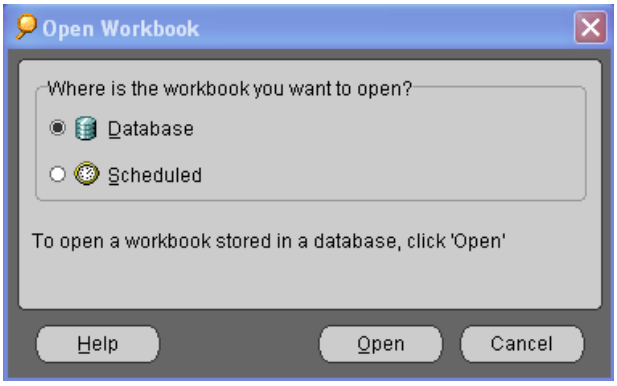
To open an existing workbook, do the following steps:

1. Use one of the following commands:
   - In the Discoverer menu bar, click on **File → Open**.
   - In the Discoverer tool bar, click on the **Open** icon symbol (identified by the pointer at right).



2. An **Open Workbook** popup window (at right) will appear.

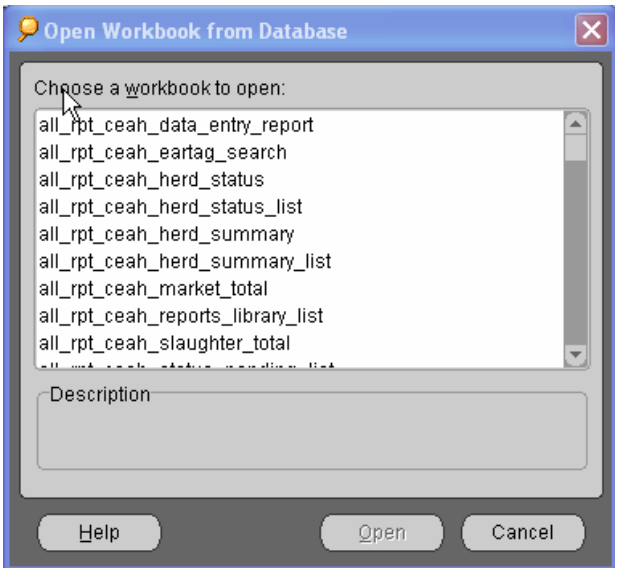
   In this window, click on the radio button next to the **Database** option. Then click [Open].



3. An **Open Workbook from Database** popup window will then appear.

   In this window, highlight the workbook you want to open. Click [Open] again.

   The workbook you requested will appear onscreen. It will be open to the last worksheet that you were working in before you saved and closed the workbook.

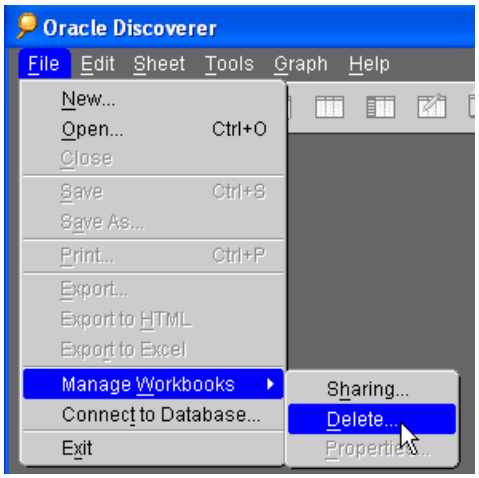


   You may or may not see a message box asking if you want to execute the active worksheet's query first or you just want to open the worksheet instead. To start modifying the worksheet immediately without running a query, click on [No].

Deleting a Workbook

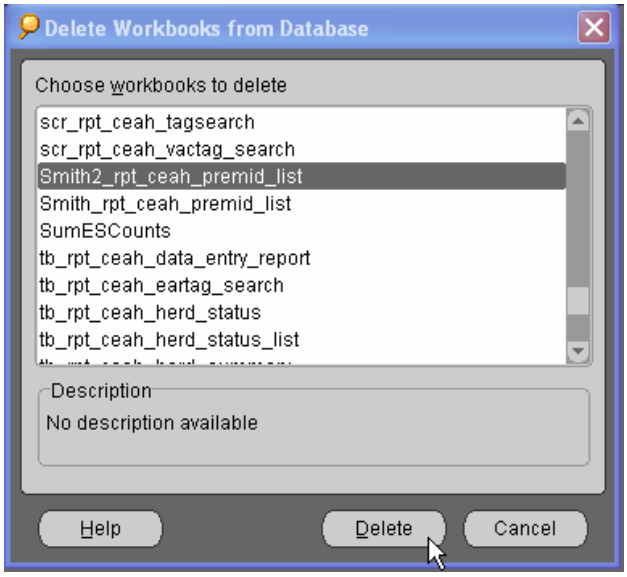
To delete a workbook that you no longer need or use, do the following:

1. In the Discoverer menu bar, click on the **File → Manage Workbooks → Delete** command (shown at right).

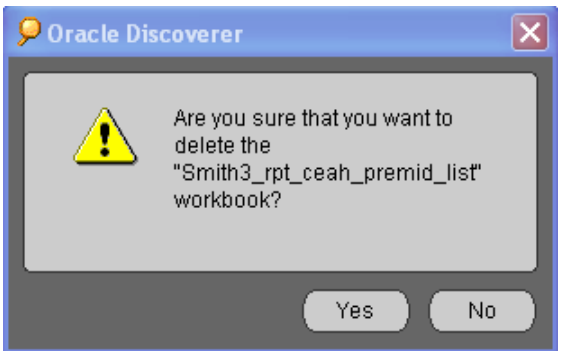


2. A **Delete Workbooks from Database** popup window (shown at right) will appear, listing all of the workbooks to which you have access.

   Highlight the workbook you wish to delete. Click on [Delete].



3. A popup window will appear, asking you to confirm this deletion request. Click [Yes].



Worksheet-Related Tasks

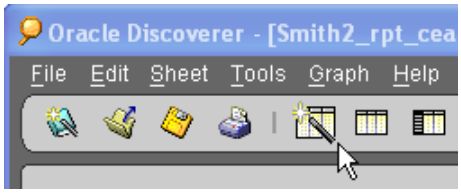
This section covers the most common procedures you will do with the worksheet(s) contained in a Discoverer workbook.

Adding a New Worksheet to a Workbook

To add a new worksheet to a workbook you currently have open, do the following steps:

1. Use one of the following commands:

   - In the Discoverer menu bar, select the **Sheet → New Sheet** command.
   - In the Discoverer tool bar, click on the **New Worksheet** icon symbol (identified by the pointer at right).



   The **Workbook Wizard, Step 1 of 10** screen will appear.

2. Use the **Workbook Wizard** to do the following minimum required steps for the first worksheet in your new workbook:

   a. In the **Step 1 of 10** screen, select the report template style you want the worksheet to use initially. Click [Next].

   b. In the **Step 2 of 10** screen, select the GDB Business Area you want to use. Then add data items from this Business Area into the worksheet. Click [Next].

   c. In the **Step 3 of 10** screen, change, if desired, the default report layout by re-arranging table columns and/or formatting table headings. Then click [Next].

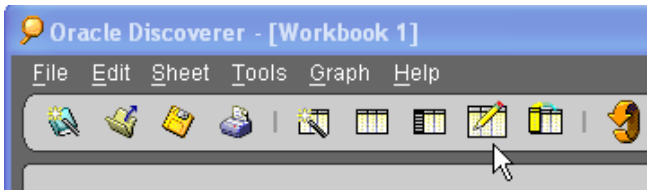
   d. In the **Step 4 of 10** screen, specify, if desired, any formatting for the data items that will be retrieved.

   You have now finished the minimum required setup tasks for this worksheet in your workbook.

3. At this point, you can either:

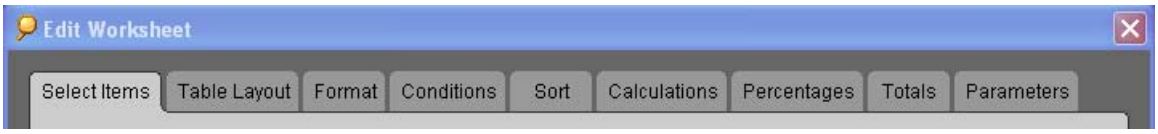
- continue using the Workbook Wizard to set up the rest of this worksheet's properties step-by-step. To continue, click [Next].

- exit the Workbook Wizard. Click [Finish].



The query you just created will run. After it finishes, you can then click on the **Edit Worksheet Screen** icon (identified by the pointer at right) in the Discoverer tool bar.

Once this screen (opens, you can pick and choose which worksheet properties you want to work on by clicking on any of the tabbed dialog boxes (shown below), such as **Format**, **Sort**, and **Percentages**.



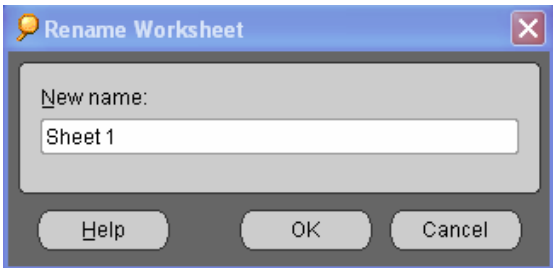
Renaming a Worksheet

When you first open a new worksheet, Discoverer will assign a default name to it. To change this default name, do one of the following procedures.

Method A:

1. Make sure the worksheet you want to rename is the active one on your computer screen, by clicking once on its tab.

2. Choose one of the following In the Discoverer menu bar, select the **Sheet → Rename** command. A **Rename Worksheet** window (shown at right) will appear.

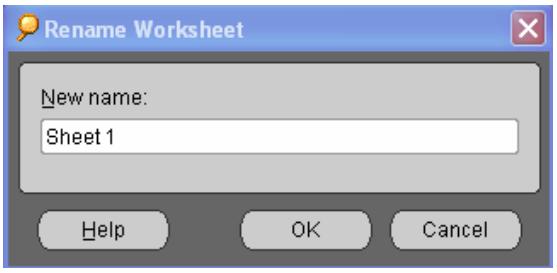


3. In the **Rename Worksheet** window, enter the new name you want to give the worksheet. Click [OK].

   The window disappears, and the new name for the worksheet will now appear on its tab.

Method B:

1. Double-click on the tab of the worksheet you want to rename. A **Rename Worksheet** window (shown at right) will appear.



2. In the **Rename Worksheet** window, enter the new name you want to give the worksheet. Click [OK].

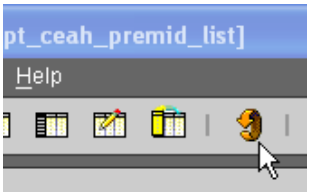
   The new name for the worksheet will now appear on its tab.

Refreshing a Worksheet

Refreshing a worksheet means you want to re-run the query stored on that worksheet.

Use one of the following commands:

- In the Discoverer menu bar, select the **Sheet → Refresh Sheet** command.
- In the Discoverer tool bar, click on the **Refresh** icon symbol (identified by the pointer at right).



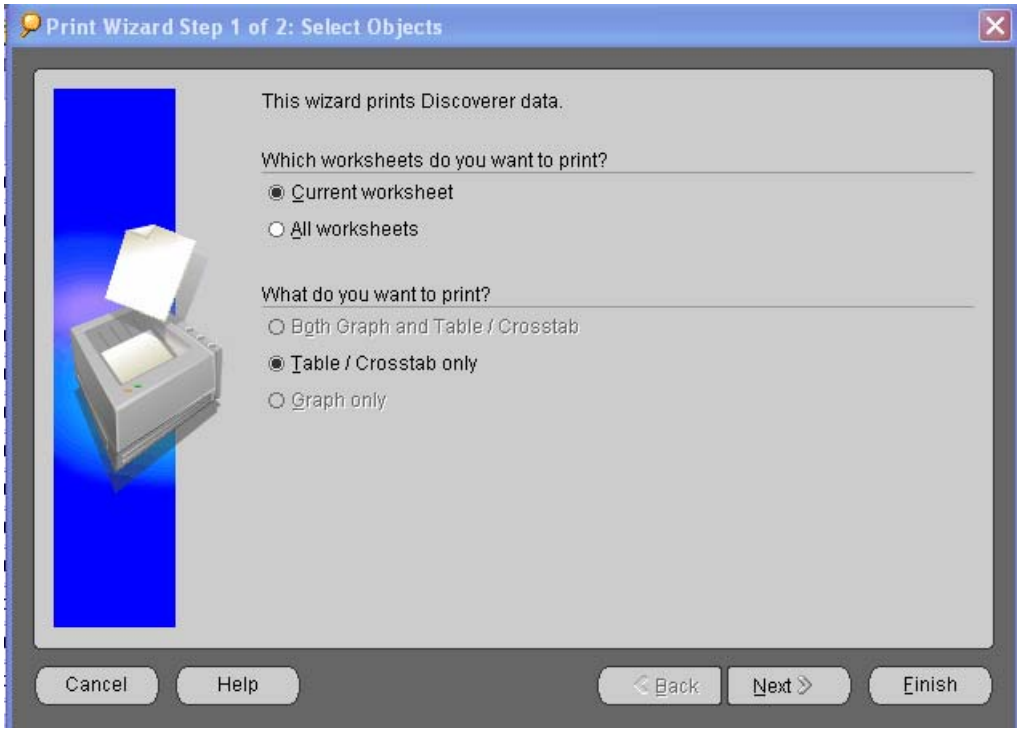
The query will automatically repeat and then display any results in your worksheet.

Printing a Report from a Worksheet Query

1. Have the appropriate workbook open. Make the worksheet whose query results you want to print the active worksheet by clicking once on its tab.

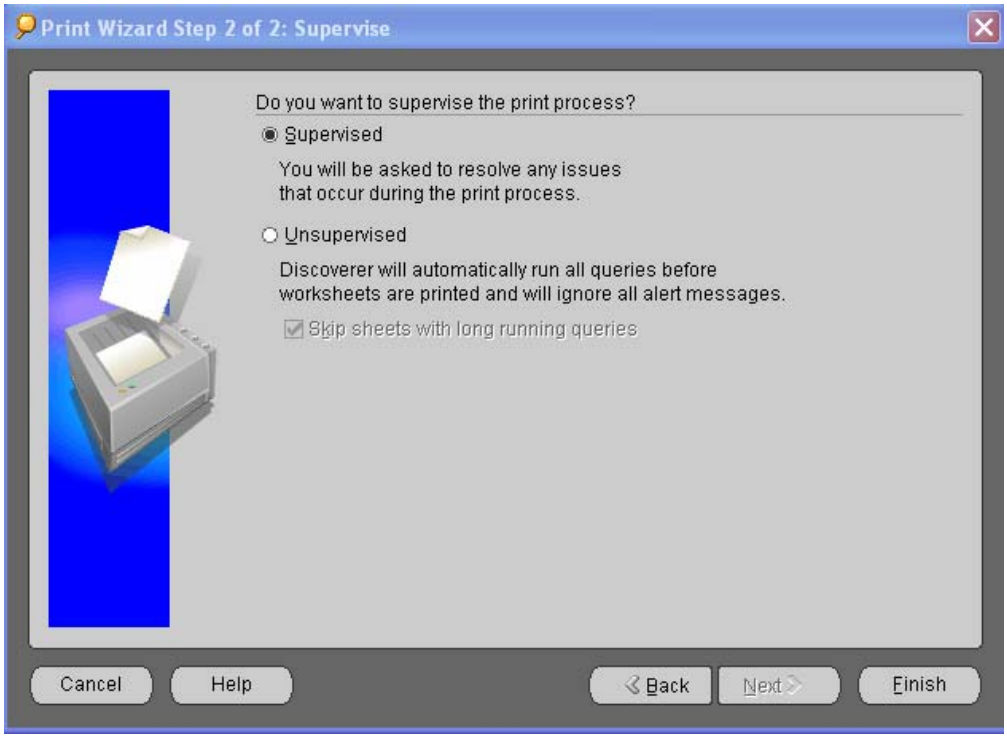
2. In the Discoverer menu bar, select the **File → Print** command.

3. A **Print Wizard – Step 1 of 2** dialog box (shown below) will appear.



Click the radio button next to the option you want. Then click [Next].

4. A **Print Wizard – Step 2 of 2** dialog box (shown below) will appear**.**



Click the radio button next to the option you want. Then click [Finish].

5. A Windows **Print** dialog box will now appear. You can use this dialog box to specify the printer and any document properties (portrait or landscape orientation, single-sided or double-sided printing, etc.).

Deleting a Worksheet from a Workbook

You can easily delete a worksheet from a workbook containing several worksheets. You cannot delete a worksheet if it is the only one in a workbook.

1. In the Discoverer menu bar, select the **Sheet → Delete** command.

2. A deletion confirmation popup message will appear. Click [Yes].

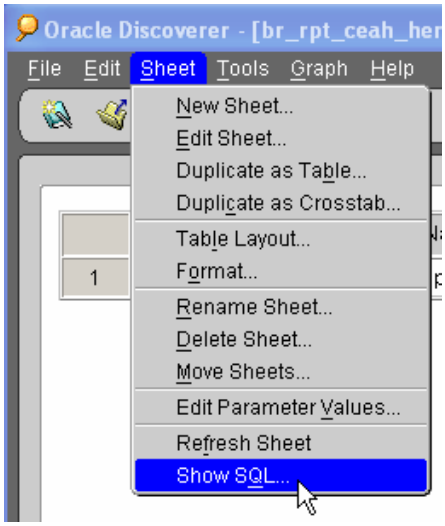
   You can verify that the worksheet was deleted by looking at the worksheet tabs at the bottom of the workbook screen.

Viewing the SQL Statement for a Worksheet

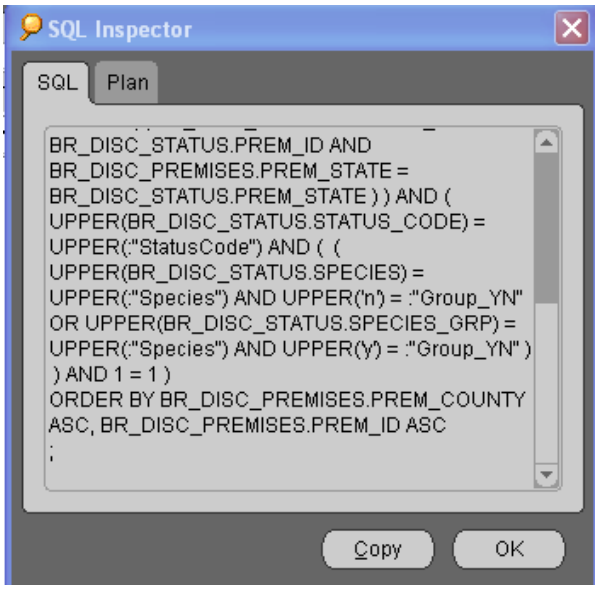
You can view the SQL statement equivalent of any of your worksheet queries by doing the following procedure:

1. Finish writing your worksheet query and save it.

2. In the Discoverer menu bar, select the **Sheet →Show SQL** command (shown at right).



3. A separate **SQL Inspector Screen** (shown at right) will appear. It contains the SQL statement that represents your worksheet's query.



When you have finished viewing the statement, click [OK] to close this window and to return to the worksheet.

Or, you can click on [Copy]. The SQL statement will be highlighted and copied into a clipboard area in Discoverer. You can now do any of several things:

- To use this SQL statement in another program, go to your other program and use its [Paste] command to transfer the SQL statement into it.
- To save this SQL statement as a file, open a word-processing program or a Windows utility program such as Notepad. Use the program's [Paste] command to transfer the SQL statement into it. Then use the program's [Save As] command to save this SQL statement as a file. Be sure to attach the **`sql`** extension to the end of the filename.

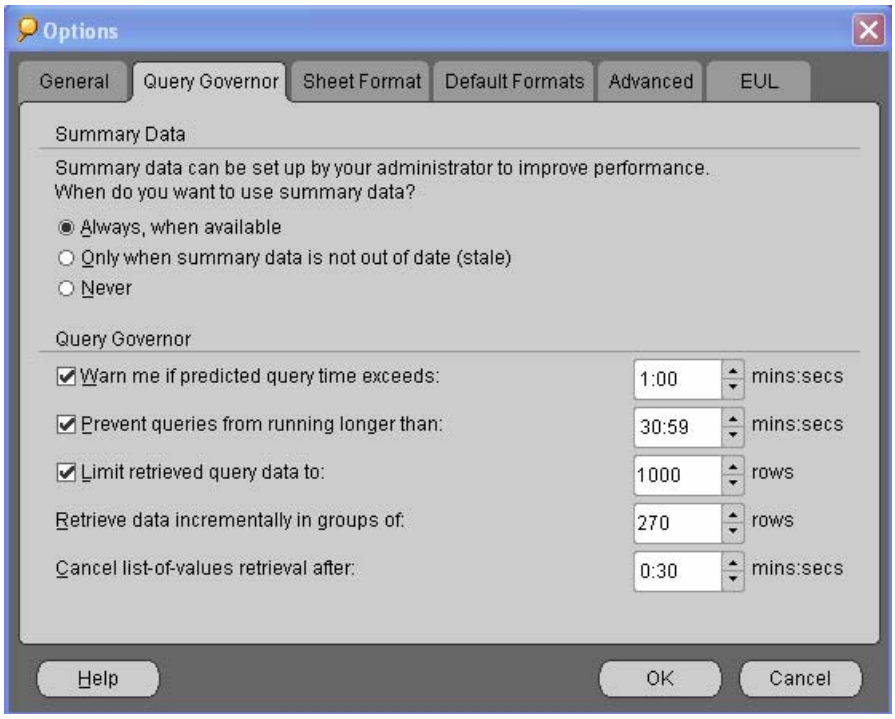
Using the Query Governor

Sometimes a query will retrieve an astonishing amount of data – you could find your printed report exceeding dozens of pages. To prevent this problem, Discoverer has a feature called the **Query Governor**. This feature lets you set such limits as how long a query should run or how the query should display its results in your worksheet or report printout.

To access and use the Query Governor, do the following steps:

1. Access the **Query Governor** feature in any of the following ways:
   - If you are working within the **Workbook Wizard**:
     i. Click on the [Options] command button below the workbook window.
     ii. When the **Options** window appears, click on the Query Governor tab.
   - If you are working within the **Edit Worksheet Screen**:
     i. Click on the [Options] command button below the workbook window.
     ii. When the **Options** window appears, click on the Query Governor tab.
   - If you simply have a worksheet open onscreen:
     i. Go to the Discoverer menu bar and select **Tools → Options**.
     ii. When the **Options** window appears, click on the Query Governor tab.

2. The **Query Governor** tabbed page will appear onscreen.



3. In the *Query Governor* block at the bottom of this page, there are three options that you should consider customizing for your Discoverer workbooks. (All of the other options on this page will need your database administrator's input.)

   The first option you should customize is the **Warn me if predicted query time exceeds** field. This option lets you instruct Discoverer to display a warning message if the execution time of your query exceeds the time you enter into this field.

   a. Make sure a check mark appears in the box next to this field label.

   b. In the field, click the up and down arrows to set the time limit that you want.

4. The next option you should customize is the **Prevent queries from running longer than** field. This option lets you pre-set the maximum length of time you want Discoverer to use to run a query.

   a. Make sure a check mark appears in the box next to this field.

   b. In the field, click the up and down arrows to set the time limit that you want.

5. The last option you should customize is the **Limit retrieved query data to** field. This option lets you pre-set the maximum number of rows (records) that Discoverer should retrieve for your query.

   a. Make sure a check mark appears in the box next to this field.

   b. In the field, click the up and down arrows to set the desired number of rows.

      This option is probably the most useful option. By controlling the number of records that Discoverer can retrieve, you are controlling the results as they appear onscreen in your worksheet or off-screen in a printed report.

6. After you have customized these three options, click [OK]. The Query Governor tabbed page will close, and you will see your active worksheet again.

   You can see how these modified options now affect your queries. Click on the **Refresh** icon in the Discoverer menu bar to run a new query from your active worksheet.